SAHARANPUR.

A GAZETTEER,

BEING

VOLUME II

OF THE

DISTRICT GAZETTEERS OF THE UNITED PROVINCES OF AGRA AND OUDH.

BY

H. R. NEVILL, I.C.S., F.R.G.S., F.S.S., M.R.A.S.

ALLAHABAD:

Printed by F. Luker, Supdt., Govt. Press, United Provinces.

1909.

Price Rs. 3 (4*s*. 6*d*.).

GAZETTEER OF SAHARANPUR.

CONTENTS.

PREFACE.

More than thirty years have elapsed since the first Gazetteer of Saharanpur was written by Mr. E. T. Atkinson. The work was based mainly on the old settlement reports, notes by Mr. G. R. Williams, and many of the volumes noted on the following page. Since the publication of Mr. Atkinson's book the district has undergone great changes, especially as regards the growth of population, the development of roads, railways and canals, and the assessment of the land revenue. In compiling the new edition I have had the advantage of the Settlement Report of Mr. L. A. S. Porter, a work of much value; and I must also express my grateful thanks to Mr. G. A. Tweedy and Mr. H. C. Ferard for the many notes furnished on various subjects.

Naini Tal;
September 1908.

H. R. N.

GAZETTEER OF SAHARANPUR.

REFERENCES.

A Voyage to the East Indies, by Eward Terry, 1655: reprint, London, 1777.

Historical Relation of the Rohilla Afgans, by C. Hamilton: London, 1787.

A Journey to Sreenugger, by Captain Hardwicke: London, 1797.

History of the Reign of Shah Aulum, by Captain W. Francklin: Calcutta, 1798.

Military Memoirs of George Thomas, by Captain W. Francklin: *Calcutta, 1803.*

Sketch of the rise of the Regular Corps, by L. F. Smith: Calcutta, 1804.

Sketch of the Sikhs, by Sir J. Malcolm: London, 1812.

A Tour through the Upper Provinces of Hindustan, by A. Deane: London, 1823.

History of the Mahrattas, by C. Grant Duff: London, 1825.

Life of Ameer Khan, by W. T. Prinsep: Calcutta, 1832.

Pen and Pencil Sketches, by Captain A. Mundy: London, 1833.

First Impressions and Studies from Nature in Hindustan, by Thomas Bacon: London, 1837.

Report on the Settlement of the District of Seharunpore, by E. Thornton: Agra, 1839.

Diary of Travels and Adventures in Upper India, by Colonel C. J. C. Davidson: London, 1843.

Report on the Eastern Jumna Canal, by Captain P. T. Cautley: Calcutta, 1845.

Notes on the Eastern Jumna Canal Levels, by Colonel Morton: Agra, 1845.

Fauna Antiqua Sivalensis: London, 1845.

Military Memoirs of Lieut.-Colonel J. Skinner, by T. B. Fraser: London, 1851.

History of the Sikhs, by J. D. Cunningham: London, 1853.

Mutiny Narratives, North-Western Provinces: Allahabad, 1859.

The Ganges Canal, by Sir Proby T. Cautley: London, 1860.

The Mogul Empire, by H. G. Keene: London, 1866.

Report of the Settlement of Saharunpore, by J. Vans Agnew and others: Allahabad, 1870.

Missions in Hindustan, by J. R. Campbell: New York, 1871.

History of the Indian Mutiny, by Sir J. Kaye and Colonel Malleson: London, 1888.

Final Report of the Settlement of the Saharanpur District, by L. A. S. Porter: Allahabad, 1891.

Completion Report on the Remodelling of the Ganges Canal, by Colonel F. V. Corbett: Roorkee, 1894.

Report on the closing of the Construction Estimate, Eastern Jumna Canal, by Colonel F. V. Corbett: Roorkee, 1897.

A particular Account of the European Military Adventurers of Hindustan, by H. Compton: London, 1899.

Note on the Training Works of the Ganges at Hardwar, by W. Ward Smith: Roorkee, 1900.

ABBREVIATIONS.

J. R. A. S.—Journal of the Royal Asiatic Society.

J. A. S. B.—Journal of the Asiatic Society of Bengal.

C. R. A. S.—Cunningham's Archæological Survey Reports.

E. H. I.—The History of India as told by its own Historians, by Sir H. M. Elliot: London, 1877.

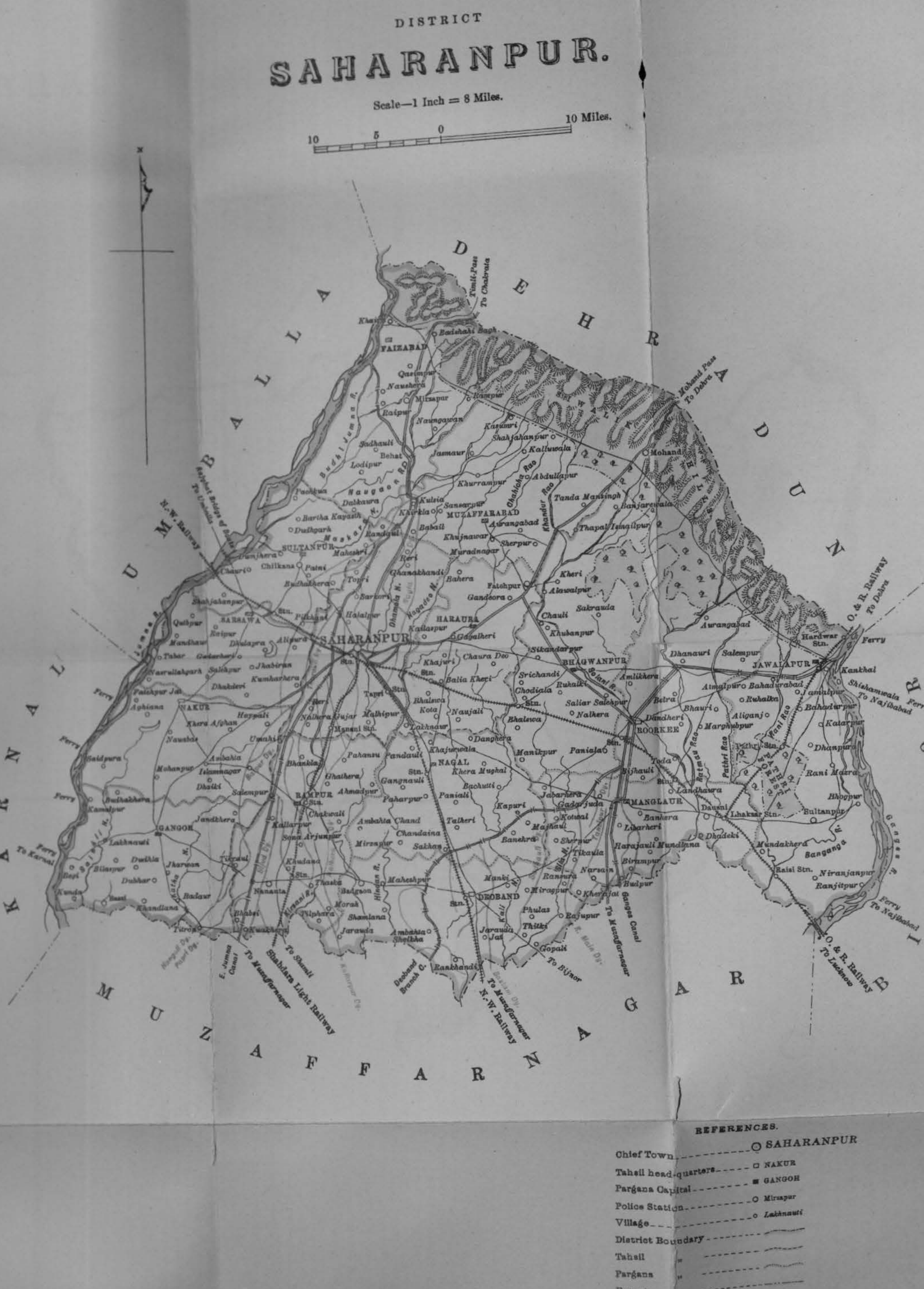


Photo.-Mechl. and Litho. Dept., Thomason College, Roorkee.
Litho., February, 1906—No. 7137.

CHAPTER I.

General Features.

The district of Saharanpur belongs to the Meerut division and forms the northernmost portion of the Doab or tract lying between the Ganges and Jumna rivers, which respectively constitute the eastern and western boundaries; the former separating the district from Bijnor of the Rohilkhand division, and the latter from Umballa and Karnal in the Punjab. To the north lies Dehra Dun, the dividing line being the water-parting of the Siwalik range, which extends in a continuous ridge from the Jumna to the Ganges; and to the south is Muzaffarnagar, the boundary on this side being purely artificial and determined solely by the limits of the parganas composing the two districts. The area is contained within the parallels of 29° 34′ and 30° 24′ north latitude and of 77° 7′ and 78° 12′ east longitude. The exact acreage is apt to vary somewhat from time to time, owing to the fluctuations in the course of the great rivers. These, however, are small in comparison with the changes that occur in the lower portions of their courses, and the variation is but slight save in the south-west along the Jumna. The average area for the five years ending in 1907 was 1,371,262 acres, or 2,142·6 square miles.

Boundaries and area.

In its general appearance the district presents much more variety of feature than any other portion of the Doab and the Gangetic plain as a whole. Most of the area, it is true, belongs to the upland *bangar*, which stretches in a continuous line southwards and then eastwards as far as the junction of the two great rivers at Allahabad; and on either side is the usual broad and lowlying valley full of swamps and backwaters, with wide expanses of open grass plains and tamarisk jungle. But in the north are the steep hills of the Siwalik chain, which appears in a far more marked form in Saharanpur than in any other

General appearance.

submontane district of the United Provinces; while below the hills are to be seen in a modified form, almost in miniature, it might be said, the prevailing characteristics of the Bhabar and Tarai country, which attain their maximum individuality below the hills of Garhwal and Kumaun to the east.

The Siwaliks.

The Siwalik range extends along the northern borders of the district, stretching in a south-easterly direction from the gorge of the Jumna in the extreme north to that of the Ganges at Hardwar, a distance of about 46 miles. The range, which has a breadth varying from six to ten miles, presents an extremely serrated outline, and this feature is constantly exaggerated, owing to the destructibility of the material of which the hills are composed. The greatest elevations occur in the north-west, where the highest point is the peak of Amsot, some five miles east of the Jumna, the recorded height being 3,140 feet above the sea level. Several other peaks attain a height exceeding 3,000 feet, such as Sahansra, 3,011, and Bahansia, 3,059; but east of the latter the summits are generally lower, the most notable peaks being that above the Mohand pass, 2,916 feet, and that of Doiwala, 2,947. The principal passes are those of Mohand and Timli, by which the roads from Saharanpur to Mussooree and Chakrata, respectively, cross the range. There are many others; but in almost every case they are very difficult of access, and are seldom used, except perhaps by the officials of the Forest department. The whole of the Siwaliks is included in the reserved forest, and a further account of the range will be given in dealing with that subject. Generally speaking, the hills are abrupt and rugged on the southern side, with a gentle slope towards the Himalayas on the north. The surface soil in most places is a thin vegetable deposit, bearing a crop of *sal*, *sain* and other trees, with *chir* on the higher levels and the northern slopes. Geologically the Siwaliks are separated from the outer Himalayas by a continuous reverse fault. They fall into three main divisions, the first comprising the sands and clays of the upper Siwalik conglomerates, the second the middle Siwalik sand-rock and the third the lower Siwalik or Nahan sandstone. The middle and upper rock stages have yielded a magnificent series of fossils, chiefly mammalian. The gorges

of the Ganges and Jumna appear to result from transverse faults, and the cliffs in these places show the lie of the strata with great clearness. The subject of Siwalik geology possesses a peculiar interest of its own, and has been fully treated by Professor Medlicott.*

The submontane belt immediately below the Siwaliks is known locally as the *ghar*, and corresponds to the Bhabar in the districts to the east. It is of varying width and throughout its length it is intersected by numerous torrents, dry during the hot weather but carrying a considerable volume of water in the rains; those on the west flowing into the Jumna, while those in the centre and east drain into the Ganges and its tributaries. Formerly the tract was covered with forest and jungle; but of late years there has been a great extension of tillage in the west, with the result that the ground has been cleared up to the foot of the hills for a distance of some twenty miles east from the Jumna. In its general appearance the eastern *ghar* consists of a series of high and broken spurs and plateaux, which sink abruptly into the plains and are separated from each other by fertile river valleys. In the west, and also in the extreme east, the surface is tolerably even, though sloping rapidly to the south and scored by the many torrent beds, while the soil is light and as a rule shallow, resting on a deep stratum of stone and boulders which frequently rises to the surface. As in the Bhabar, the water from the hill streams sinks into the bed of boulders to an enormous depth below the ground, with the result that the construction of wells is either very expensive or else altogether impossible. Irrigation is, therefore, out of the question, and in some estates there is no water supply at all. The population is sparse and unequally distributed, and as the soil is unsuited for house-building the villages consist principally of wattle huts, which are liable in the dry season to destructive fires; while those estates which lie along the forest boundary suffer from the ravages of wild beasts and the fields require elaborate fencing. In spite of these drawbacks the soil appears to be fairly fertile, though it now shows some signs of exhaustion and the crops are no longer what they were.

Submontane tract.

* Rec. Geol. Sur., vol. III, part II, p. 121.

In the light land little labour is required, the proximity to the hills secures a heavy rainfall and the slope of the country obviates the danger of flooding. Under favourable circumstances cane of fair quality can be grown without irrigation, and wheat, cotton and other staples do well. The southern extremity of this tract is marked by an outcrop of boulders, beyond which lies a moist Tarai tract in which the streams reappear at the surface and unite together to form rivers.

The upland plains.

This Tarai belt merges rapidly into the level country which embraces the great bulk of the district. The open plains resemble the rest of the upper Doab in their general characteristics, and are divided into *bangar* or upland and *khadir* or lowland, the latter comprising the broad alluvial valleys of the Ganges and the Jumna on either side. The *bangar* has a general slope from north to south, its upper limits running roughly parallel to the Siwaliks. The only inequalities of surface are those caused by the channels of the various rivers, which form the drainage lines and constitute a series of depressions separated from each other by broad strips of high land. Along the crests of the slopes into the river beds the soil is usually light and sandy, while elsewhere it is mainly a productive loam, stiffened by the action of water into clay in the lower levels. The southerly slope of the country is more rapid in the north than in the south of the district. The submontane tract is higher in the west than in the east, the recorded heights being 1,095 feet at Faizabad, 1,029 at Raipur, 891 at Dhanaura, on the southern edge of the belt, and 948 feet at Jwalapur. Consequently the fall in the west of the uplands is more rapid than in the east. From Behat, 1,979 feet above the sea, the level drops to 900 at Saharanpur, about 870 feet at Nagal and Rampur, 873 at Deoband and 828 at Titron on the extreme southern borders of the district. In the east somewhat lower figures are recorded for places situated in corresponding latitude, Roorkee being 875 and Manglaur 864 feet above the sea.

Jumna *khadir*.

The boundary between the upland and the western lowland is very slightly defined in the north, but soon becomes clearly marked and represented by a high bank which, though frequently broken and abrupt, is often sufficiently sloping to be culturable. This bank first makes its appearance in pargana Faizabad, and

it thence continues past the towns of Sultanpur, Sarsawa, Nakur, Gangoh and Lakhnauti, all of which stand on the outer edge of the high ridge. In several places, however, the bank is double, that is to say, an inner or eastern bank occasionally runs inland skirting the eastern extremities of numerous *jhils* and depressions, as at Sikri near Chilkana, the great Dhulapra *jhil* near Sarsawa and again at Aghiana to the south-west of Nakur. At such places the inner and upper *khadir* represents a much older formation, though its origin was doubtless similar to that of the true *khadir* near the present stream of the Jumna. All along the high bank lies a belt of stiff swampy clay of varying width, which as a rule produces excellent rice, and gives rise to two small streams, known as the Budhi and Saindli, which ultimately find their way into the Jumna. Between this line of swamps and the river the surface of the ground is scored with numerous depressions, which appear to be the beds of abandoned water-courses. In these beds the soil is a stiff clay; but elsewhere the *khadir* consists of light loam, in places inclining to sand or sometimes more or less infected with *reh*, a sure sign of saturation. The breadth of the tract varies from two to eight miles, and its quality differs greatly in different places. The northern portion in pargana Sultanpur is well cultivated, and there is but little unreclaimed waste; in the southern parganas several excellently tilled and rich estates are to be seen, but the population is scanty and large areas of culturable waste still remain to be brought under the plough.

Ganges *khadir.*

On the east the upland proper terminates in the high bank overlooking the valley of the Solani, and practically all the country beyond that river, from the foot of the hill southwards, should be described as *khadir*, though it is drained by the Solani, the Ratmau and other streams as well as by the Ganges. To the north the transition from upland to lowland is in places very gradual, but further south the bank steadily increases in height and steepness, while the ravines increase in frequency and length. The character of the Ganges *khadir* varies greatly from place to place, the soil ranging from almost pure sand in the ridges between the various torrent beds to the stiff clay of the numerous swamps. There is a considerable extent of forest and jungle as well as

large expanses of open grass waste, of no greater value here than in the adjoining district of Muzaffarnagar. The *khadir* is an extremely backward tract, much inferior to that along the Jumna. The population is scanty and more or less nomad; the rivers and streams are numerous and difficult to cross; the soil is moist and apt to be overgrown with weeds, while considerable areas suffer from flooding, erosion and saturation. The area embraced in the Ganges *khadir* is very large, at any rate in the wider application of the term, for east of the Solani bank lie all Jwalapur and most of pargana Roorkee, as well as considerable portions of Bhagwanpur and Manglaur. All this is lowlying ground, though the true *khadir* of the Ganges is much less extensive and consists of an ever-widening strip of a far more moist character than the boulder-strewn submontane tract, and far more precarious in character. It is the most backward part of the district, and its fiscal history exhibits almost as many vicissitudes of fortune as the *khadirs* of Muzaffarnagar and Bijnor.

Soils.

A fuller account of the physical aspects of the district will be given in the several pargana articles; but apart from minor peculiarities of situation the main subdivisions of the area preserve the same general characteristics throughout. This is especially the case in the matter of soils, which are remarkably uniform, so much so indeed that distinctions of natural soils were disregarded at the last settlement, the classification for assessment purposes depending rather on the absence or presence of irrigation. Nevertheless several varieties of natural soil are generally recognised by the people, though, of course, in no case can any hard-and-fast line of demarcation be drawn between one soil and the next. The light rich loam that covers the largest area is known as *rausli*, though this in its turn ranges from a light friable soil with a considerable admixture of sand to the softer kinds of clay, in which all crops can be grown with equal facility at both harvests. Heavy clay, found principally in the depressions, is here known as *dakar*, a name that is generally used in the upper Doab and corresponds with the *matiar* of other districts. It is principally reserved for rice cultivation, though with an adequate rainfall and good tillage it produces

other crops with great success. As elsewhere the light soil found on the higher levels, containing more than 75 per cent. of sand, is called by the ordinary name of *bhur*. This covers but a small area and is of little value for agricultural purposes, generally producing nothing more than a light rain crop. Occasionally this sandy soil is found in long ridges, as in the Manglaur and Deoband parganas, where it is known as *ghur*: with the aid of irrigation it will produce *rabi* crops of fair quality, but otherwise is practically useless. Frequently the worst description of *bhur* is termed *bhuda* or *bhua*, a name which in the adjoining district of Muzaffarnagar is practically synonymous with *bhur*, though the term is frequently applied in a deprecatory manner to any unirrigated tract, and is also used to distinguish the higher parts of an estate from the *dahar* or lowlying depressions. The soils of the submontane tract exhibit some peculiarities, especially in the north-west, where the high terraces between the torrent beds often possess a dark, chocolate-coloured soil which is extremely productive where the deposit is of any depth. This soil is also found in the central portions of the tract, though it varies in quality and towards the east is replaced by an alternation of sand and a light soft clay. Mention should also be made of *misan*, though this is a purely conventional term and is applied to the highly manured and well cultivated zone that immediately surrounds the village site, corresponding to the *bara* and *goind* of other districts.

Rivers.

As is invariably the case the leading physical characteristics of the district depend primarily on the rivers. These are many in number, but they are all included in the two great systems of the Ganges and the Jumna, the dividing line being the watershed which runs parallel to the high bank of the Solani from Shahjahanpur, at the foot of the Siwaliks, through the parganas of Muzaffarabad, Haraura, Bhagwanpur and Manglaur. This line divides the district into two unequal parts, and practically confines the discharge into the Ganges to the low eastern *khadir*, since the height of the bank compels the surface water to make its escape southwards and ultimately south-westwards into the Hindan and thus into the Jumna opposite Dehli.

Ganges.

The Ganges can only be termed a river of this district in so far that it forms the eastern boundary, the course of the deep stream being the dividing line between Saharanpur and Bijnor. It first touches the district at Hardwar, 180 miles from its source in the upper Himalayas, and at this point it debouches on to the plains through a well-marked gorge in the Siwalik chain. The town of Hardwar lies at the foot of a lofty hill at the right bank, while to the left is the height of Chandi, 1,930 feet above the sea. The gorge is about a mile in width at its narrowest point, and the river flows in a series of channels separated from each other by islands. Many of the latter are well wooded, and are of sufficient height to be beyond the reach of the annual floods except on extraordinary occasions. The main stream is here known as the Nildhara and flows close under the Chandi hill, while the principal branch passes directly under the town of Hardwar, joining the former at Kankhal about two miles down. It is on this branch, at a point known as Ganesh-ghat, that the headworks of the Ganges canal are situated, a sufficient supply of water being brought into the channel by means of training-works erected some miles above Hardwar. For a considerable distance below the town the bed of the Ganges is composed of boulders, including a small proportion of limestone. This represents the Bhabar tract, and the loss by percolation is very marked in this portion of its course. The boulders disappear about 12 miles below Hardwar, being gradually replaced by sand, while at the same time the slope rapidly decreases till at the Balawali bridge, where the Ganges leaves this district, the river becomes navigable by country boats. The width of the channel varies considerably, as also does the nature of the bank. Usually the latter is high on one side and low or shelving on the other, but the stream has a far from stable course and is apt to change greatly through the annual floods. The waters diminish rapidly from the middle of October and attain their minimum volume by the middle of January. By March the discharge is doubled, and increases during the summer months with the melting of the snows in the Himalayas, while ultimately it reaches its maximum during the rains. The difference between the highest and lowest

discharge is extraordinary. The volume at Raiwala, about six miles above Hardwar, frequently falls to less than six thousand cubic feet per second between January and March and sometimes even a lower figure is recorded, the smallest volume ever observed at this point being 4,427 cusecs in March 1892. On the other hand, the normal high flood discharge is calculated at 482,000 cusecs; and this sometimes is largely exceeded, the maximum rising to 610,660 cubic feet in 1880 and to no less than 700,843 in 1894, when an abnormal flood was caused by the bursting of the Gohna lake in the hills of Garhwal.

Ganges tributaries.

The tributaries of the Ganges are for the most part mere torrents having their origin in the outer slopes of the Siwaliks, and traversing the lowlands of the *khadir* in a south-easterly direction. The Banganga, however, is of a different nature, being in reality a backwater of the Ganges and probably representing an abandoned bed of that river. It leaves the main stream about four miles below Kankhal, and thence wanders southwards through the *khadir* of pargana Jwalapur. Near Bhogpur it takes a south-easterly course as far as the railway and thence turns south into Muzaffarnagar, eventually joining the Ganges at Chandpuri in that district. Generally the Banganga has a well-defined bed, and does little damage to the land on its banks; but it has changed its course greatly during the past century and at all times forms a serious obstacle to cross-country communication, being quite unfordable when in flood. The first of the principal torrents to the west of the Banganga is the Ranipur Rau, which is formed by the confluence of several streams that drain the hills to the north of Jwalapur. It flows in a broad bed of boulders past that town on the west, and thence southwards across the Ganges canal and into the Pathri forest, where it becomes a sluggish stream, generally known as the Patharwa. On the western borders of the forest it discharges into the Pathri Rau, a much larger torrent with a catchment area of about 80 square miles. This again is formed by the combination of several hill watercourses in the north of pargana Bhagwanpur. The combined stream flows southwards, a short distance to the west of Salempur, and then crosses the canal at Bichpari, being kept in position for some distance

above that point by an extensive series of training works. It then flows southwards into the marshy ground on the western borders of the Pathri forest and, after receiving the Ranipur Rau, turns south-east along the Manglaur boundary, uniting with the Banganga close to the Raisi railway station. These two streams, after their entry into the lowlying ground of the *khadir* proper, serve a useful purpose in draining the marshy sand in and near the Pathri forest: their beds, though narrow, are deep and well-defined, and as a rule they do no damage; it is only when the waters are held up by the Banganga floods that they are apt to inundate the country in their vicinity.

Ratmau.

From the western watershed to the Pathri the ground slopes gently to the basin of the Ratmau, a torrent of similar nature but greater extent, its catchment area being 126 square miles. Like the others, the Ratmau has its origin in the union of a large number of hill streams which drain the outer Siwaliks and the submontane forest tracts of Sakrauda and Kansrao. The chief of these, beginning from the east, are the Gholna, Betban, Kalatira, Sindliwala, Bam, Kaniawala, Malowala, Dholkhand, Andheri and Gaj Raus. The name Ratmau is generally given to the union of the Dholkhand and Andheri, the others falling into this stream at various points between the junction and the canal crossing at Dhanaura. The torrent has a wide bed, bounded on the west by the ridge of high land that extends southwards to within a short distance of Roorkee. Leaving this at Rahmatpur, the stream takes its course through the lowlands of the *khadir* till it joins the Solani on the northern boundary of pargana Manglaur.

Solani.

The Solani itself is at first a mere torrent, but gradually becomes a river of considerable magnitude and importance. The name is first given to the stream formed by the junction of the Chilawala, Kania, Sukh and Mohand Raus, which drain the submontane country immediately to the east of the Mohand road. Near Thapal Ismailpur it is joined by the Rajwa and Khandur Raus, the former being of little importance while the latter is of considerable size, carrying the combined waters of the Khujnawar and Shahjahanpur Raus, as also of the Hatni Sot and other streams. The whole is then known as

the Solani, which flows in a south-easterly direction under the high bank that marks the eastern limits of the upland plain. Just above the town of Roorkee it receives on its left bank the Sipia, a watercourse of considerable length that rises in the ravines of the Sakrauda plateau and is fed by several affluents such as the Haljaura, the Jakni and the Dhandora, all of which carry water only in the rains. At Roorkee the Solani passes under the great canal aqueduct and thence continues in a south-easterly direction to the northern borders of Manglaur, where it is joined by the Ratmau. At that point it turns south, keeping close to the high bank and traversing the low marshy *khadir* till it finally passes into Muzaffarnagar. Though of no great size in the cold weather the river occupies a wide bed when in flood, and has done considerable damage to the lowlands on its banks by erosions and changes of course. The Solani *khadir*, however, is very extensive, and many of the estates which lie outside the range of its destructive influence are of marked fertility. A good deal of saturation has occurred in the Manglaur *khadir*, owing partly to floods on the Solani, partly to percolation from the canal and partly to the action of the Hadwaha, a small stream that rises in a clay tract in the south-east corner of pargana Roorkee and flows southwards in a shallow bed past Laksar into Muzaffarnagar, where it eventually joins the Banganga. The only tributary received by the Solani on its right bank is the Bhat, which carries down the drainage from the eastern uplands of Manglaur. Though of small size, it is a very destructive stream, and has done much damage to the land in its immediate vicinity.

From the high Solani bank, or rather from the crest of the watershed above it, the land slopes gently to the south and west, so that the surface drainage no longer passes into the Ganges but collects to form the numerous tributaries of the Jumna. The latter system, as already mentioned, is divided into several subsidiary systems by the principal affluents of the river. These drain the uplands and in most cases pass southwards into Muzaffarnagar to unite with the Hindan, which may be considered the arterial drainage line of the *bangar* tract in the northern portion of the upper Doab. The Hindan begins as a hill torrent, Hindan.

rising in the Siwaliks to the north of pargana Muzaffarabad. The name Hindan is at first applied to a small stream which has its origin near Aurangabad, but the bulk of the water is derived from a torrent known in its upper course as the Kaluwala Rau and afterwards as the Chahicha, which receives the Khokra on its left bank at Khujnawar and joins the Hindan proper on the northern boundary of pargana Haraura. Thence it flows across that pargana to the western border, and for some distance separates it and Nagal from Saharanpur and Rampur; it afterwards enters Nagal and passes south through pargana Deoband into Muzaffarnagar. In its course through the plains the Hindan has a well-defined bed and its banks in most places are high and steep, with a stretch of light sandy soil on their crests. In Deoband the bed widens out to a considerable extent, leaving a strip of inferior *khadir* on either side. Further north the area of alluvial land is very small, though in many villages it is of considerable value: elsewhere it is covered with sand, but even then it is profitably utilised for melon cultivation. Floods are of somewhat frequent occurrence, but as a rule damage caused by them is slight and the effects of erosion are never serious.

Kali Nadi. The Hindan receives no tributaries on its left bank within the limits of this district, with the exception of two small streams known as the Nalhera and Sohagni, after the villages in which they rise: they carry down the drainage from the uplands in the south-west of pargana Nagal, but have little effect on the country through which they pass. There are, however, other affluents of the Hindan which unite with that river beyond the southern boundary of the district. The chief of these is the Kali Nadi, often called the western river of that name to distinguish it from the eastern and larger stream that is so important a feature in the Doab district to the south. The Kali Nadi originates in two streams, both known by the same name, which rise in the north of pargana Haraura and unite in Nagal, close to the point where the Deoband canal is carried over the river. Of the two branches the eastern is the larger and possesses a deeper channel, with fairly high banks crowned with a narrow belt of light sandy soil. After their junction the

river attains a considerable size, and the bed increases in width and depth. In the north of pargana Deoband the Kali is reinforced by a small stream called the Khala, which rises near Jataul and drains the south-east corner of pargana Nagal; and at Mahtauli, where the river passes into Muzaffarnagar, it receives on the left bank the Sila, a large watercourse that rises in the south of Bhagwanpur and flows between high and well marked banks through the west of Manglaur and the east of Deoband. Another tributary of the Kali Nadi is the Imlia, which rises to the south-east of Deoband, of which town it carries off the drainage introduced by means of artificial channels. During the rains the volume is too great for the stream and inundations occur at several places, with the result that some land has become saturated and cultivation has been abandoned. The Imlia flows almost due south, past Rankhandi into Muzaffarnagar, and joins the Kali Nadi on its right bank a few miles beyond the boundary of this district.

Nagdeo. The first important tributary of the Hindan on its right bank is the Nagdeo, which originates in the Kotri Rau in the Siwaliks to the north of pargana Muzaffarabad and flows in a south-westerly direction in a narrow bed with an inconsiderable volume of water. After passing along the boundary between Saharanpur and Haraura it joins the Hindan at Ghagreki, a few miles to the south-east of the headquarters town. The next is the Dhamola, which rises in the outer edge of the submontane tract near Jasmaur and has a somewhat lengthy course, traversing the civil station of Saharanpur, where it picks up much of the drainage and is joined by an insignificant rivulet known as the Pandhoi. From Saharanpur it continues southwards for some miles, uniting with the Hindan at Firozpur Nandi in the south-east corner of the pargana. The Kali, sometimes called the Kirsana, is a small stream that has its source in a depression near Pahansu in the north-east corner of pargana Rampur, and flows southwards in a narrow but well-defined bed, keeping almost parallel to the Hindan till it joins that river at Dudhi in Muzaffarnagar, a short distance beyond the boundary of this district.

Dhamola.

Kali.

Kirsani. The Kirsani, Karsuni or Krishni is a larger stream, at all events in its lower reaches. At first it is of insignificant

dimensions, but is reinforced by a large amount of escape water from the canal and drainage from the land in its vicinity. A considerable portion of its course has been realigned, and the channel straightened and deepened by the Canal department with good results, though in wet years it receives more water than it can carry. The river rises in the south of pargana Saharanpur, and has been connected for drainage purposes with the old channel of the eastern Jumna canal. Passing down the centre of Rampur its bed broadens out so as to leave on either side a strip of *khadir*, fertile in places, but liable to submersion and generally neglected. It receives the escape water from the canal near Nanauta and soon afterwards enters Muzaffarnagar, eventually joining the Hindan.

Jumna.

The remaining rivers of the district comprise the Jumna and its direct affluents. The former first touches the district in the extreme north of pargana Faizabad, passing through a gorge in the Siwaliks at Khara about 123 miles from its source. The valley is bolder and more varied in scenery than that of the Ganges, but possesses the same general characteristics, the stream flowing in a succession of boulder-strewn rapids. On emerging from the hills the valley expands and the river separates into several channels, one on the right bank entering the Umballa district and rejoining the main stream 18 miles lower down, while another branches off to the east near Faizabad, under the name of the Budhi Jumna. The river then flows in a wide bed with a constantly shifting channel, along the western boundary of the district, which it leaves at the south-western extremity of pargana Gangoh. The character of the bed rapidly changes, boulders giving place to sand and sand to mud. Though it attains very large dimensions in time of flood, the Jumna does little damage to the *khadir* lands in its vicinity, since they are mostly uncultivated and covered either with barren sand or tamarisk jungle. The numerous changes effected by the river in former days are illustrated by the frequent presence of backwaters and depressions in the *khadir*, which still hold a good deal of water during the rains. The chief of these is the Budhi Jumna, already mentioned, the upper portion of which is utilised for the eastern Jumna canal from Khara as far as Nayashahr; below that

village it forms a canal escape and generally carries but a small volume. It rejoins the main stream in pargana Sultanpur, a short distance above the railway bridge, and in its lower reaches is usually known as the Sapolia.

The Budhi Jumna receives on its left bank a large number of hill torrents, which bring down the drainage from the north-western Siwaliks. They do a great deal of damage to the land in their vicinity, and the erosive action has been much more violent and extensive since the removal of the forests and the spread of cultivation to the foot of the hills. They also form a constant menace to the Jumna canal, and much labour and money has been expended in this connection so as to pass the flood water over the canal in safety: for some account of the works involved reference must be made to the description of the canal in the following chapter. The first of these torrents, beginning from the west, is the Badshahibagh Rau, called after the place of that name: in the hills it marks the course of the Chakrata road, and at the foot it leads south-west to the canal at Nurpur-Husainpur two miles below Faizabad. Next comes the Raipur torrent and then the Naugaon, a much larger stream that is formed by the union of the Khaironwala, Barkala, Kasumri and other Raus, and is carried across the canal by means of the Naugaon dam just above Behat, whence it goes westwards into the Budhi Jumna. In the latter portion of its course the channel has been much improved, so as to obviate much of the damage done by flooding in the neighbouring villages of pargana Faizabad. The last is the Maskara, which originates in the Jasmaur and Sahansra Raus. These unite just below Jasmaur, and the stream thence flows south-westwards in a broad bed to the canal at Kalsia. It is used for the rest of its course as an escape and passes in a well-defined channel through pargana Sultanpur, keeping close to the high bank till it enters the *khadir*, and finally joining the Budhi Jumna just above its confluence with the Jumna. Tributaries.

The belt of swamp in the Jumna *khadir*, which runs along the base of the upland bank, finds outlets in the small streams known as the Budhi and Saindli. The former rises in the basins of the Abdullahpur and Chilkana *jhils* and flows in a winding Budhi.

course along the base of the high bank, past the town of Sarsawa, and thence as far as Gokulpur, where it crosses the low *khadir* to fall into the Jumna at Fatehpur Jat. Its course in the *khadir* is somewhat ill-defined and the channel is apt to vary, but the stream serves a useful purpose as a drainage line, though it is perhaps capable of improvement. The Saindli is of a similar nature, rising in a large crescent-shaped *jhil* in the *khadir* near Kalheri in pargana Nakur, which appears to mark an old channel of the Jumna. It is reinforced by some of the drainage from the Kumharhera *jhil*, which finds its way with difficulty through the uplands and joins the Saindli at Meghan Mazra. From that point it follows the high bank, flowing close to the town of Lakhnauti and emptying itself into the Jumna at Kunda on the Muzaffarnagar border.

Saindli.

Katha.

There remains the Katha, which rises in the north-east of Nakur and winds in a narrow and tortuous course through Gangoh, being supplied with water from an extensive area of lowlying land in both parganas. Large sums have been expended in deepening and straightening its bed, but it is still a very inefficient drainage channel, a considerable portion of its basin being swampy and unculturable. The trouble is greatest in the south-east of Gangoh, where attempts have been made with very indifferent success to carry the waste water from the old line of the canal and the Andauli swamp. The Katha leaves the district near Titron, and eventually makes its way into the Jumna in pargana Kairana of Muzaffarnagar.

Drainage.

The natural drainage of the upland tract is generally adequate, though in places there are depressions, some of considerable extent, which have no sufficient outlet, and in which the land is either out of cultivation or else liable to damage by floods. Originally the evil appears to have been slight, but it was aggravated by percolation from the canals, by the construction of faulty escapes and by the obstruction caused by the canals themselves and, to a less extent, by railways and roads. Such occurrences were most frequent in the western parganas, along the course of the Jumna canal, and attracted attention at an early date. A number of schemes were drawn up, and many of them carried out with success. Among the first of these projects to

be completed were the cuts made to relieve the trouble caused by the old and ill-designed channel of the Muhammadan canal. A drain nearly five miles in length was excavated from the old canal close to Rampur, taking the surplus water into the Kirsani, this work being finished in 1865. A similar cut was made from Anantmau to the Katha, relieving the waterlogged area between the canal and the Tikraul distributary; and south of this is the long Thola cut from Haidarpur to the Katha near Titron, effectively draining the large depression to the north of the latter place. At the same time attention was paid to the rivers themselves, the Kirsani and Katha being canalised with considerable success; and subsequent years have witnessed a large extension of drainage works in these parts, with the result that the damage done to the land has been removed, although some of the waterways are inadequate to carry the volume passed into them during abnormally wet years. Much, too, has been done in the way of filling up hollows and depressions with the silt taken out of the canal, and every year one or two such lowlying patches are raised to the extent of three feet or more, thus materially reducing the percolation from the canal. On the other hand the success of the Katha drains has not been complete. The swamp area has certainly been reduced; but much of the land reclaimed is of little value, and the ricet racts along the edges of the old marshes have deteriorated in quality. Another large scheme in connection with the Jumna canal was the relief of the Dhulapra and Kumharhera *jhils* in pargana Sarsawa by means of a cut from Tharauli on the canal through the *jhils* into the *khadir*. This did not follow the natural line of drainage, and the slope was insufficient to carry off the water: various improvements have been made from time to time, but the success of the scheme has been only partial. The drainage of Saharanpur and its neighbourhood was another matter that called for action, as the site was notoriously unhealthy and the Dhamola and Pandhoi were too sluggish to carry off the large volume of flood water they occasionally received. About 1850 the cultivation of rice was prohibited within a radius of three miles of the town; while subsequently Mr. Jenkinson and other district officers undertook with conspicuous success the task of straightening

and embanking the streams. Additions to this scheme were afterwards made by the Canal department in the shape of cuts leading into the Dhamola and Nagdeo. Much again was effected in the waterlogged lands in the north of Sultanpur and the south of Faizabad, where an immense marsh was greatly reduced by the excavation in 1862 of eight cuts with an aggregate length of twelve miles, carrying the surplus water into the Maskara. Altogether, inclusive of the channels dug by the district authorities, drains have been made in the area commanded by the Jumna canal with an aggregate length of 212 miles, and the benefit derived therefrom has been incalculable. Something, no doubt, still remains to be done in this part of the district. The Sultanpur swamp is not wholly drained; the Dhulapra and Kumharhera *jhils* do much damage in wet years; the railway line seriously interrupts the natural drainage between Sarsawa and the Jumna, with results disastrous to cultivation in the *khadir*; and there are yet several villages, such as Naiabas, Ismailpur and Bijupura, in pargana Saharanpur, which are extensively inundated in seasons of heavy rainfall.

Ganges canal tract.

In the central portion of the district the drainage trouble is slight and is practically confined to a few villages in the Haraura and Bhagwanpur parganas, in which the water is held up by the railway embankment. Further south, however, in the vicinity of Deoband, a serious difficulty has long been encountered owing principally to the direction taken by the Deoband branch canal, which runs transversely to the natural slope of the country. The utilisation of the Imlia for carrying off the surplus water from the town lands had somewhat disastrous results, and many supplementary works have been undertaken, the most important being the cut excavated in 1902 from the Sakhan *jhil* to the Hindan, which relieved a very large area on both sides of the canal, while further measures were afterwards carried out by the Deoband municipality. In the east of the pargana and in Manglaur much had to be done to correct the obstruction caused by the canals and distributaries, the chief drainage work being the deepening of the Sila by giving that stream a uniform slope from the point where it is crossed by the Sidhauli distributary to its confluence with the Kali Nadi. This was completed in 1877, and

subsequently a number of drains were excavated in order to relieve the lands east of the river, especially those from Gadarjuda, Narsain, Libarheri and Paniala. The town of Manglaur, on the east bank of the Ganges canal, suffered greatly from percolation till a system of drains was completed about 1875, and this was extended in 1886 so as to benefit the eastern parts of the town, though the lands to the north still require attention. The total length of drains made by the Canal department in the central and eastern uplands is 106 miles, while the expenditure has been nearly Rs. 90,000. The figures include those for the Bijhauli drain, made in 1900, which carries the drainage from the lands along the canal to the south of Roorkee into the Solani valley.

Ganges *khadir*

Perhaps the worst-drained portion of the district is the Ganges *khadir*, especially the Pathri swamp and its vicinity, and the lands to the south. No attempt has been made to drain the Pathri forest, which is a valuable grazing reserve, but it might well be possible to improve the neighbouring estates. The railway line, too, obstructs the drainage in many villages, and the valley of the Solani has always been precarious and subject to waterlogging. In 1879 a drain was made with the object of reducing the Landhaura swamp and improving the lowlands along the Solani; but the object has not been fully attained, though the *khadir* has undoubtedly improved, since the swamp still remains, and the channel, which runs along the foot of the high bank, needs constant attention owing to the quantities of silt washed down from the ravines.

Lakes and *jhils*.

The total area covered with water, according to the returns for the five years ending in 1907, averages 83,882 acres or 7·09 per cent. of the entire district. This of course includes the rivers and canals, which in large measure account for the unusually high proportion; but at the same time the district possesses a great number of swamps, *jhils* and ponds, even if there are few remarkable expanses of open water. The relative amount is greatest in the Faizabad pargana, where it is no less than 14·28 per cent. of the whole area; and it exceeds ten per cent. in Roorkee, Muzaffarabad, Jwalapur and Bhagwanpur. In the upland parganas, on the other hand, the figure is comparatively low, the tahsils of Deoband and Nakur showing but 3·5 and 4·21

per cent., respectively, while in the latter it would be much less but for the inclusion of the Sultanpur pargana. In the upland the only large *jhils* are those of Dhulapra and Kumharhera, and it is doubtful whether they should be included in the upland proper. The others are unimportant, as they are seldom of any size and their influence is purely local: those that deserve notice will be mentioned in the pargana articles. In the *khadir*, both of the Jumna and the Ganges, there are many extensive swamps, although their area has been much reduced by drainage operations. Among the most notable are the Sultanpur, Kulheri and Aghiana *jhils* in the lowlands of the Jumna and the Pathri swamp in pargana Jwalapur.

Forests. The Government forests in this district cover an area of 188,433 acres, or 295 square miles. They comprise practically the whole of the hilly range of the Siwaliks as far south as the submontane road from Hardwar to Khara, together with a belt of submontane country, chiefly in the Roorkee tahsil; the Bishanpur islands in the Ganges below Hardwar; the Pathri blocks on the plateau between the Ganges and the canal; and the Sakrauda blocks of broken country cut by numerous torrent beds. At the beginning of British rule no regard was paid to the jungle area, which was left in the possession of the *zamindars* of the neighbouring villages. In 1839 the superfluous waste was measured off, the area being described as the Kheri, Kansrao and Pathri forests, covering in all 142,420 acres, apart from the Siwaliks. Soon afterwards it was ordered that these tracts should be leased under the usual system of jungle grants to persons capable of bringing them under cultivation, and between 1839 and 1860 grants were distributed to the number of 104, with a total revenue rising from Rs. 6,596 to Rs. 70,446. So far as the extension of cultivation went, the plan was successful; but it would have been far better to have reserved the forest and to have retained what would now be a valuable Government property. Some of the grants were afterwards assessed in the ordinary manner, while others were resumed, so that at the present time they are 78 in number. One result of this policy has been that cultivation now extends up to the foot of the hills for about fifteen miles to the east of the Jumna, and the denudation of the country has greatly increased

the violence of the hill torrents which threaten the safety of the eastern Jumna canal, necessitating the expenditure of a very large sum on protective works. Another detrimental effect has been the abolition of much valuable pasture to which reference will be made later. The grants which remained unlet, and several which had been resumed for failure to observe the conditions, were made over to the Forest department, and were gazetted as reserved, together with the Siwalik tracts, on the 15th of March 1877. Under Act VII of 1878 fresh notifications were issued on the 3rd of December 1878 in the case of Pathri, and on the 27th February 1879 for the remainder. The boundaries were defined at the same time, and are marked in some cases by natural features, but more commonly by cleared lines with a ditch on the outer edge and masonry pillars at intervals. The area was known as the Saharanpur forest division, and formed a separate charge divided into the four ranges of Barkala, Mohand, Dholkhand and Ranipur; but in 1905 the Mohand range was abolished and divided between Barkala and Dholkhand, while the division was amalgamated with that of Dehra Dun, under the name of the Siwalik division. It is in the charge of a deputy conservator stationed at Dehra, assisted by an extra assistant conservator, with a ranger or deputy ranger in charge of each range.

In the Siwaliks the surface is extremely broken, the hillsides rarely affording long continuous slopes: but the ground is cut up in every direction by ravines and precipices. Occasionally there are flat narrow stretches on the banks of the innumerable torrents; but as a rule the soil is exceedingly poor, consisting of beds of sandstone, gravel and conglomerates overlying hard rock which in places crops out on the surface. In a few valleys there are fair deposits of vegetable humus, but seldom are the conditions favourable for good tree growth. In the submontane area the surface has a gentle slope broken by the torrent beds, and covered partly by *sal*, partly by mixed forest and partly by open grass jungle. Further south, in the almost detached Sakrauda block, the country is broken and intersected by ravines: the soil is generally a stiff clay, though on the gentle slopes below the road it is sand mingled with boulders washed down from the hills. Description.

The Pathri block is a level grassy plain, moist and often water-logged, in which several streams have their source; the soil is a fine clay containing much vegetable matter. Lastly, in the Ganges islands the ground is fairly level and of a sandy nature, strewn with boulders cast up by the river.

Ranipur range.

The Ranipur range comprises the eastern portion of the Siwaliks, together with Bishanpur and Pathri. In addition to these blocks, it comprises those known as Mayapur, Ranipur, Rauli, Chirak, Harnaul, Gholna, Betban, Naurangabad and Tira, of which the last two alone are submontane. On the higher portions *chir* occurs in some abundance, especially in the east, and below this the crop is usually mixed forest of little value, mainly *khair*, *shisham*, *dhak*, *ber*, *semal* and other common species. In places *sal* is found, but the trees are small : bamboos grow luxuriantly on the outer ranges, and are an asset of great value. South of the road the forest is very poor, and there are many grass blanks. In Bishanpur there is a mixed forest of *ber*, *shisham*, *semal* and other varieties; while in Pathri, in the scattered patches of woodland, *dhak* is the prevailing tree, though near the Firozpur rest-house is a fair plantation of *shisham* and teak.

Dholkhand range.

The central portion of the forest area constitutes the Dholkhand range, which has a total area of 61,550 acres. It comprises the hill blocks of Bam, Malowala, Dholkhand, Andheri, Gaj, Chilawala and Sukh; the submontane blocks of Sendhli, Hazara Rasulpur, Papri, Ganjarban, Lakarkot, Baniawala and Lalwala; and the more or less detached plains areas of Shahmansur and Sakrauda. On the high ridges *chir* is the predominant species, but the growth is poor except in Chilawala and Sukh to the north-west. Below this comes a mixed forest of *bakli*, *sain*, *khair* and other trees of no value, and on the lower slopes and in the moist and cool valleys is an abundance of *sal*, principally small trees of rather stunted growth. Bamboos are common throughout the area, as in Ranipur. South of the road too there are large areas of *sal* of fair quality, and below this miscellaneous forest with the usual submontane varieties. In Sakrauda the greater portion consists of mixed species, mostly very poor, but in the west there are three good patches of *sal* in which the trees have attained a considerable size.

The north-western range is known as Barkala, and extends to the Jumna. Practically the whole of it lies to the north of the submontane road, the only exception being the Budhaban block in the south-east corner, with much miscellaneous forest fit only for fuel, and a little *sal*. The blocks north of the road are known as Mohand, Khujnawar, Shahjahanpur, Kaluwala, Kotri, Sahansra, Kasumri, Barkala, Khaironwala, Chapri, Badshahibagh and Khara. The total area is 81,951 acres. In this range the growth is generally better than in the eastern areas. The upper ridges are well stocked with *chir*, which improves towards the west and in Khara attains a large size. The dry slopes have the usual mixed forest, and below this comes *sal*, better and more prolific at the two extremities than in the centre. A fair amount of *khair* is to be found near the road and on the islands of the Jumna, where too *shisham* grows in profusion. **Barkala range.**

When first reserved the forests were worked on no definite plan, and it was not till 1883 that a coppice working circle was started in the Tira block, while others were opened at Mohand and Ranipur in 1888. Improvement fellings began in 1884 and have been continued with the best results. On the hills irregular selection fellings were adopted, the trees being sold standing to the villagers. The difficulty lay in the absence of mature timber for export, the demand being purely local. For this there is an ample supply in the shape of small logs and beams, while a large market has always existed for fuel and bamboos. The minor produce is of considerable value, especially the *bhabar* grass used for ropes and paper-making. There is also much *munj* grass, while other articles are gums, sandstone and a very small amount of lac. The right to remove minor produce is leased annually to contractors, and the system has proved very satisfactory. For the exploitation of the forests a regular working plan was drawn up by Mr. A. P. Grenfell and others between 1893 and 1896, and this prescribed continuous improvement fellings for the *sal* area, a scheme of coppice working circles for fuel and miscellaneous timber for the local supply in the submontane tracts, selection fellings on the hills and a rotation for bamboos. This plan was revised in 1906 by Mr. E. A. Courthope, on the **Management.**

amalgamation of the Dehra Dun and Saharanpur forests, the new prescriptions to come into force in 1908. Four working circles were demarcated, one for *sal* with an area of 10,112 acres, improvement fellings to be worked in coupes with a rotation of fifteen years, a coppice working circle, 25,522 acres in extent, for the supply of fuel and poles for local requirements, on a thirty years' rotation; a miscellaneous working circle, comprising 152,793 acres of more or less inaccessible forest, in which no systematic work is proposed; and a bamboo circle, to be cut over every fourth year.

Protection.

For protection against fire there is a cleared line 150 feet wide along the road from Hardwar to Khara, and in the Barkala range there is a higher line, running parallel to the former between the Mohand and Timli roads. These highways also serve the same purpose, while subsidiary lines, only ten feet wide, separate the various compartments. Fire conservancy is not attempted in the detached blocks, but elsewhere it has been carried out with fair success. A great difficulty in the matter of efficient protection is caused by the amount of grazing that has necessarily to be permitted in these forests, since immense numbers of cattle depend solely on them for pasture. When the forests were first reserved no rights were recorded; but concessions were granted in 1880 to 16 villages, permitting them to graze 4,917 head of cattle at the rate of four annas per annum for buffaloes, two annas for cows and bullocks, and two pies for sheep and goats, the last being restricted to 110 head. In 1886 rules for the regulation of grazing were framed, and these were somewhat modified in 1893, the villagers being allowed the option of either a three years' settlement made by the Collector or a permit for one year from the department. Grazing is allowed in all parts of the forest except in the *sal* circle, but it is not encouraged in the hill blocks. The number of cattle admitted to the forest in 1906 was 24,865, and though this is less by one-third than the number allowed ten years previously, it imposes a heavy tax on the area by retarding reproduction and uncovering the soil in the hilly portions. To the east of the Mohand road no great difficulty exists, as a special grazing circle has been demarcated, but to the west there is hardly any

permanent grazing land available. Prior to 1840 this tract contained a submontane belt of forest five or six miles in breadth, but this wholly disappeared under the short-sighted policy of reclamation then in vogue. No attempt was made, moreover, to regulate grazing on the hills, which had disastrous effects on the forest and also constituted a grave menace to the Jumna canal, since the torrents rapidly became more violent in their action as the slopes were denuded. Had the submontane jungles been preserved, the Siwalik blocks might have been absolutely closed, while abundant pasture would have been retained for the cattle.

Roads and buildings.

The only roads in the forests are those already mentioned, and these have to be utilised for the disposal of the produce. There are numerous inspection paths, but these are not negotiable by carts and are seldom fit for camels. The Ganges canal and the Ganges are employed for the transport of timber and bamboos, and the produce of the forest is carried by these routes and the various unmetalled roads in the plains to the markets of Saharanpur, Roorkee, Hardwar and Meerut. The staff consists of three rangers or deputy rangers, assisted by one or two foresters, and 52 forest guards stationed singly or in pairs in the *chaukis* situated at intervals varying from three to six miles along the submontane road, and at greater intervals along the outer boundary in the case of blocks lying to the south of the road. There are inspection houses for officers at Ranipur, Beribara, Dholkhand, Mohand, Shahjahanpur, Kasumri, Khanpur in the Sakrauda block, and Firozpur in Pathri.

Revenue.

The income derived from the Saharanpur forests is not large. In 1862 the amount credited to the department was Rs. 7,168 and in 1869 it was Rs. 8,499. No figures are available for other years, as the accounts cannot be separated from those of Dehra Dun till the constitution of the Saharanpur division. From 1886 to 1895 the average receipts were Rs. 39,672 and the expenditure Rs. 26,170 annually, leaving a surplus of Rs. 13,502; and for the next ten years the income averaged Rs. 39,041 and the expenditure Rs. 27,163, the net profit being Rs. 11,878; though in the last five years the annual surplus was as much as Rs. 18,315. With the amalgamation of the Saharanpur and

Dehra Dun division in 1905-06 the revenues were no longer kept distinct, and separate returns are not available after that date.

Jungles. Apart from the forests there is no large area of jungle or waste, except in the more backward parganas of the north. Little of this, too, is covered with tree growth, the major portion consisting in open expanses of coarse grass, in itself of considerable economic value, and all of it useful as a grazing-ground. In the open and highly developed country of the uplands tree jungle is almost unknown; but in the *khadir* occasional patches of *dhak* and other species are to be seen, both in the north and in Gangoh, Manglaur and elsewhere. It is impossible to define the limits of such land, owing to the invariable confusion between barren and culturable waste and old fallow, but the subject will be further dealt with in the following chapter. A certain amount of inferior forest is to be found on the outskirts of the Government reserves, especially in the jungle grants of the Roorkee tahsil and in the vicinity of the Pathri block; but as a rule the Forest department has acquired all the timber-bearing land that is worth exploitation, and the remainder merely serves for the supply of local needs.

Groves. Generally speaking the district is well wooded, except in the rice tracts and the open wastes of the river valleys. In the upland parganas almost every village possesses one or more groves of mango and other trees, and the steady increase in the area of groves may be taken as an indication of the prosperity of the district. As the second regular settlement the grove area was 6,286 acres, while at the last revision it had almost doubled, the total then being 12,200 acres, exclusive of tree-bearing land which was actually under cultivation. Subsequent years have witnessed a further increase, and for the five years ending with 1906-07 the average was 13,133 acres or 1·11 per cent. of the entire district, excluding the forests. The proportion is not high as compared with that of other parts of the United Provinces; but it is distinctly above that of the rest of the Meerut division, in spite of the fact that plantations or groves are never abundant in the neighbourhood of forests, where all the wood required for domestic and agricultural purposes can be obtained from natural sources. Here the highest proportion is 2·47 per cent. in the Saharanpur

pargana, and next in order come the southern parganas of the upland tract, the Deoband tahsil as a whole having 1·45 per cent. of its area occupied by groves. In the submontane belt and in the *khadir* groves are naturally less common, and relatively the smallest amounts are ·44 per cent. in pargana Roorkee; ·51 in Muzaffarabad and ·67 in Faizabad and Gangoh. Save for the gardens of the well-to-do and the professional fruiterers, in which nearly every variety of Indian and European fruit is grown with a success that has won for Saharanpur a well-deserved reputation, and which really come under a different category, the groves seldom contain any species beyond the mango, which thrives exceedingly well in this district. The planting of timber trees is not common, although some land-holders have copied the excellent example set by the Canal department, which now possesses a valuable property in the plantations of *shisham, tun* and other species along the course of the eastern Jumna canal. The scattered trees to be seen all over the district are of the kinds common to all the Gangetic plain, and require no separate description; the most usual are the *shisham, siras, jamun, babul* and the various kinds of fig, such as the *gular, pipal, bargad* and *pakar*.

Minerals. The mineral products of the district, though somewhat more varied than usual, are of no more than ordinary importance. In the Siwaliks there is but little stone hard enough for building purposes; pieces of sufficiently strong consistency may be picked out here and there, but although most of the houses in Hardwar and Kankhal are constructed of materials so procured, the quantity obtainable is not large enough to repay the expense of carriage to a long distance. Suitable building stone has, in fact, to be imported from Agra, and is too costly to be employed except for special purposes, as to the average rate of Rs. 25 per 100 cubic feet must be added carriage by rail at six pice per 100 maunds per mile. The boulders found in the beds of the Khandur and several other torrents furnish good material for metalling roads, and, though decidedly inferior to *kankar*, are comparatively cheap, owing to the relative proximity of the supply and the lower cost of carriage by boat on the roads within reach of the Ganges canal. The roads from Roorkee and

Saharanpur to Dehra and the Chakrata road are wholly metalled with stone, while in the southern parts of the district it is more advantageous to employ *kankar*. The collection of boulders sufficient for 100 cubic feet of metal costs Re. 1-12-0; breaking, Re. 1-8-0; and consolidation, Re. 1-12-0; while the ordinary rate for carriage by road is eight annas per mile. These boulders, too, yield excellent lime when burned, and this fetches on an average Rs. 28 per 100 cubic feet at Saharanpur. Lime is also obtained from *kankar*, but this kind is much inferior in quality. The nodular form of *kankar* is found in almost every part of the uplands, and also in the *khadirs* of the Jumna and Ganges. The best pits include those at Kumharhera and Dhulapra in pargana Sarsawa; at Manani, Gadanpura and Kankarkoi in pargana Saharanpur; at Zainpur and Raghunathpur in Nakur; at Manikpur and Telipura in Sultanpur; at Tikraul in Rampur and at Bajuheri in pargana Roorkee. The ordinary cost of excavation is Rs. 2-12-0 per 100 cubic feet, including stacking, while carriage costs eight annas per mile and consolidation one rupee for the same amount. Clay suitable for brick-making is to be found everywhere save in the northern parganas, and the small country bricks are made in native kilns or *pajawas* in the vicinity of all the towns. The large bricks of the English pattern are manufactured at Sheikhpura, Jogiwala and elsewhere in flame kilns, and the cost ordinarily ranges from eight to ten rupees per thousand according to the quality, while those made in *pajawas* fetch from six to eight rupees. The only other mineral product of any commercial value is the saline efflorescence known as *reh*, which makes its appearance in the lowlying tracts where saturation has occurred. It is carefully collected and used either by the Dhobis as a substitute for soap, or else by the Manihars as a basis for the manufacture of crude glass for making the glass bangles worn by women.

Building materials.

Little need be said on the subject of building materials. The majority of the houses are constructed of mud, with roofs of thatch or small country tiles supported on rough rafters of the inferior kinds of timber, principally mango or *nim*, the cost of which is usually ten annas per cubic foot, though in most

cases the materials are provided by the *zamindar*. The better kinds, such as the *shisham* and *jamun*, generally cost between Re. 1-8-0 and Rs. 2; while *sal* logs, used for the flat roofs of houses of a superior class, generally fetch Rs. 3 per cubic foot landed at Saharanpur.

The fauna of the district is considerably more varied than in the country of the Doab to the south, owing to the presence of hills and forests, and also to the existence of large tracts of uncultivated jungle in the *khadirs* of the great rivers. Of late years, however, there has been a marked decline in the number of wild animals, especially in the case of the larger carnivora. In former days, when the forest area was far more extensive than at present, tigers were very numerous in the Siwaliks and along the Ganges: but, though they are still found in the hills, their appearance in the *khadir* is now rare. Still earlier, it would seem, the Indian lion was a denizen of these tracts, even as late as the beginning of the nineteenth century according to Hamilton; but while it is certain that this animal was frequently hunted by the rulers of Dehli along the upper reaches of the Jumna, it is stated by Royle that at the advent of British rule it was confined to the west of the Jumna, and especially to the borders of the Hansi desert. Leopards, probably of two distinct varieties, are still fairly numerous in the submontane tracts and the jungles of the Ganges, but the extent to which cattle are now excluded from the forests has driven them northwards, as is also the case with tigers, which have now but little temptation to leave their fastnesses in the hills. Other species include the hyæna, the lynx, various wild cats, the red dog and the wolf, which last is very common, though not so ubiquitous as the jackal. The sloth bear inhabits the Siwaliks and wild pig are to be found all over the district, and especially in the *khadir*. Wild elephants almost throughout the year occur in herds in the hills, and there is hardly a torrent bed in which their foot-prints may not be seen. Occasionally they descend into the submontane country, doing much damage to rice and other crops. Attempts have been made to capture them: but the natural difficulties are great, and at the last *kheddah* in the cold weather of 1899-1900 only seven were taken. Deer of many species

Fauna.

exist, including the *sambhar* or *jarau*, the *chital* or spotted deer, the *parha* or hog-deer, and the *kakar* or barking deer. Of the antelopes the Indian blackbuck is comparatively rare, the *nilgai* is found in the river basins and small jungles of the north, the *gural* or Himalayan chamois occurs on the Siwalik ridges, and the *chausingha* or four-horned antelope is occasionally to be met with in the forest. Other animals comprise the fox, the porcupine and monkeys, both the *langur* and the ordinary red pest of the plains. Snakes are not unusually numerous, the chief varieties being the cobra, *karait*, *daman* and the python, which is confined to the Siwaliks and sometimes attains an enormous size, though it is comparatively harmless. The birds are of the same species as are found in most of the submontane districts. The resident gamebirds are peafowl, black and grey partridge, sand-grouse and jungle-fowl, while the migrants include snipe, quail and all the usual varieties of water-fowl which visit the district in large numbers during the cold weather.

Fish.

The larger rivers, the canals and those *jhils* which hold water throughout the year contain a plentiful supply of fish, which is used whenever available as an article of food by Musalmans and all but the higher castes of Hindus. Fishing is carried on by Meos, both Hindu and Musalman, many of whom cross over into this district from Bijnor, and also by Mallahs, Kahars, Julahas and several other castes. There are, however, but few professional fishermen, most of the persons who resort to fishing having some other and more permanent occupation. Fish are caught principally by means of nets and various forms of wicker baskets or traps; but the rod and line is sometimes employed, and good angling is to be obtained in the Ganges, Jumna and the canals. The prevailing species are the mahseer, *rohu*, *saul* and others of the carp tribe, the *anwari* (mullet) and the *chilwa*, though this list is far from exhaustive. Much damage is done to small fry by the *gunch* or freshwater shark, which is found in the rivers and attains an enormous weight. The fish when caught are hawked in the bazars and villages, the price ranging from two to four annas a *ser*, according to quality and size.

Cattle.

The domestic animals found in the district are of fair quality, but there are no local breeds and no attempt at selection

is made. The importation of Hansi bulls proved a failure, as their large size renders them unsuitable for the ordinary small stamp of cow kept by the *zamindars* and villagers. Generally speaking, the cattle are better than in more southerly districts, this result being due principally to the existence of good pasture land in the forest and submontane tracts and in the river valleys. The graziers in the northern parganas maintain large herds, and sell their surplus stock to itinerant dealers from the southern districts of the Doab and elsewhere; and the business is a profitable one, though somewhat precarious by reason of the frequent inroads of disease. The average price of bullocks ranges from Rs. 25 to Rs. 70 each, the average being about Rs. 45; cows fetch from Rs. 10 to Rs. 50, according to the yield of milk; and a buffalo costs from Rs. 30 to Rs. 100. In every case the price has risen greatly during the past thirty years, and the present rates, being much higher than those prevailing in most districts of the United Provinces, indicate the existence of a superior class of animals. The first cattle census, taken in 1899, showed that Saharanpur possessed a far larger supply of cattle than any other district, the total giving an average of 3·99 animals per plough, as compared with a provincial average of 2·38. In the same connection it should be noted that the plough duty was unusually high, as indeed it is throughout the Meerut division, amounting to 11·24 acres. Such a figure postulates a sturdy breed of cattle, so that the actual surplus is greater than at first sight appears. The last census was taken in 1904, and then it was ascertained that the number of bulls and bullocks was 249,000 and of male buffaloes 2,525, giving a total of 251,525 plough-animals. There had been a marked decline in the preceding five years: but still there were 2·93 animals per plough, while the average plough duty had dropped to 10·19 acres. The decrease in the number of animals is open to some doubt, as there was possibly a suspicion of Government requisitions, as was undoubtedly the case in other districts; but Saharanpur still possesses a large surplus, even after making every allowance for draught-animals. Carts are used almost exclusively for transport, and pack-bullocks and ponies are not employed as in Rohilkhand to the east. Cows on the other hand showed an increase, and the total

of 135,804 was exceeded in few districts; there were also 72,100 cow buffaloes, these figures bearing witness to the extent and importance of the *ghi* trade. Young stock numbered 215,723, and the decline under this head, though of no marked character, perhaps shows the result of the attempts on the part of the Forest department to reduce the amount of grazing in the reserves.

Sheep and goats.

Sheep and goats are not particularly numerous, the totals in 1904 being 60,515 and 46,627 head, respectively. They are not permitted to enter the forests, save in strictly limited numbers, and this may account for the comparatively low figures, though the small aggregate is somewhat surprising in view of the blanket industry. Sheep are kept by the Gadariyas for their wool, for food and for penning on the land, a considerable sum being realised from the landowners in return for the manure they afford. Goats, too, are in general demand for their milk and their flesh, which is habitually eaten by Musalmans. Camels are not common in this district, the total number enumerated being but 110.

Horses.

Of far more interest and importance are horses and ponies, though the old reputation of Saharanpur as a horse-breeding district has almost vanished. The country-breds of the Katha were once famous, and it was partly on this account that a stud depôt was established at Saharanpur in 1842. Stallions were located in several of the Katha villages and in other parts of the district, and the foals produced from *zamindari* mares were purchased on account of Government. The experiment was given a long trial under various systems; but it proved too costly, and the profits realised by the *zamindars* were not sufficiently attractive to render the horse-breeding industry permanent. No greater success attended the Government farms attached to the stud, and eventually, in 1880, the farms were closed and horse-breeding was entirely abolished. The stud establishment was converted into a remount depôt, the duties of which are confined to training and preparing for service in the cavalry and horse artillery imported Australian animals, which are in most cases brought up raw from Calcutta, where they are purchased by the remount agent. Since the abolition of the stud

horse-breeding has been conducted by private persons with the aid of Government stallions. These are either provincial or owned by the district board, the former being allowed to serve only branded mares which have been approved by the Civil Veterinary department. At the present time there are four horse and four pony stallions under provincial management, located in different places, but the number has been greatly reduced of late, and all the district board stallions have been removed. The decay of horse-breeding has also affected the Hardwar horse fair, which in former days was one of the chief institutions of the kind in the north of India. It took place at the time of the Dikhauti bathing fair, about the middle of April, and was largely attended by dealers from all parts, caravans coming even from Afghanistan. Many officers from cavalry regiments used regularly to visit the fair and liberal prizes were given for the best animals. Nowadays, however, the fair has almost ceased to exist, prizes are no longer awarded, and the trade is confined to locally bred horses and ponies of indifferent quality. In 1904 there were altogether 14,720 horses and ponies in the district, and though this is a comparatively high figure, the great majority are ponies of the usual under-sized and under-fed description. Attempts have also been made to encourage mule-breeding, and a number of donkey stallions, either Italian or Cyprian, were sent to the district for the purpose. The experiment proved generally a failure, for owing to peculiarities of soil and climate, as is supposed, or to some other cause mule-breeding does not seem to flourish here. At present only one stallion is maintained, at the expense of the district board, as compared with eight that were kept in 1901. The number of mules in the district at the last census was 1,737, the total being exceeded only in Muzaffarnagar and Meerut, though even there the figure is low in comparison with the numbers in many parts of the Punjab. There were 8,207 donkeys, but these are mainly the wretched little creatures used by the Kumhar and the Dhobi, such as are familiar in every part of the provinces.

Cattle disease.

No reliable returns are forthcoming as to the mortality from cattle disease, owing to the general habit of concealment or

omission to report suspicious cases. Several kinds, however, are generally prevalent, and sometimes these assume an epidemic form. The most deadly are rinderpest, anthrax and hæmorrhagic septicæmia, which is usually confined to lowlying and damp localities: of late years the ravages of rinderpest have been less violent than formerly, though there is little readiness on the part of the people to bring forward their animals for inoculation. Anthrax is fortunately uncommon, and the outbreaks are as a rule of a sporadic nature. Probably the most general ailment is foot-and-mouth disease, though this is seldom fatal and will yield to treatment. Blackquarter and other forms occur but seldom, or at any rate are not often correctly diagnosed. There is a veterinary hospital at Saharanpur in the charge of a veterinary assistant entertained by the district board, and a second trained assistant is employed on peripatetic work in the district.

Climate.

The climate of Saharanpur resembles that of the United Provinces generally, though modified by its northern position and proximity to the hills. Being a submontane district, with a higher latitude than any other portion of the plains to the east of the Jumna, it has a longer cold weather, and though the heat in May and June is considerable, it does not approach the temperatures recorded in the south and south-east. Frequently, too, relief is afforded by local hill storms, the influence of which extends for some distance to the south; but at the same time the monsoon is usually later in its arrival and the precipitation is on an average somewhat less than in the eastern districts, where the current from the Bay of Bengal is felt with greater force. Regular meteorological observations are taken at Roorkee, and these may be considered representative of the district as a whole, though of course there is some difference in climate and temperature between the tract at the foot of the hills and the southern portion of the area. From the records it appears that the annual mean temperature is almost exactly 75° F. The cold weather may be said to begin in November, when the mean temperature is 65°, while it falls to 58·5° in December, 56° in January and 61° in the following month. A rapid rise is experienced from the beginning of March, the average for that month being 72,° while that of April is 81,° of May 89,° and of June, the hottest month,

slightly over 89.° With the advent of the rains a marked fall ensues, but the climate at this season is generally close and oppressive, and this is believed with reason to be the most unhealthy portion of the year. The average mean temperature for July and August is about 84,° and for September 81·5; ° an appreciable drop occurs in October, when the nights are much cooler, the average being little more than 75.° The maximum reading seldom exceeds 105° in the shade, and at the same time the minimum in the cold weather is fairly high in most years, while frosts of any severity are distinctly uncommon.

Records of rainfall for the stations of Saharanpur and Roorkee are extant for each year from 1861 onwards. In 1864 rain-gauges were started at Deoband and Nakur, while in 1879 Hardwar, Muhammadpur, Nayashahr or Naushera and Jarauda were added to the list, and from 1891 statistics have been returned from other canal stations of Kalsia, Kuakhera and Salempur. These places are scattered over the area in such a way as to give a fair estimate of the general rainfall of the district; there is, however, no station on or near the Siwalik hills between the Ganges and Jumna, though the fall in this part of the district is much greater than elsewhere owing to the higher altitude and the influence of the forest. The mean annual rainfall for the entire district is 37·36 inches, but there is very great variation in the amount received in different parts. Following the line of the eastern Jumna canal the averages are 46·84 at Nayashahr, 39·33 at Kalsia, 38·82 at Saharanpur, 32·18 at Salempur and 30·62 inches at Kuakhera on the extreme southern border. Nakur in point of latitude lies halfway between Saharanpur and Salempur, and has an average fall of 32·88 inches. In the central area the only stations are Deoband and Jarauda in the south, and these show 33·03 and 28·28 inches, respectively. The precipitation is much greater in the east, along the line of the Ganges canal, and this tract is both nearer to the forest and is also influenced by the high ranges of the Himalayas above Bijnor. The average for Hardwar is no less than 49·67 inches, while that of Roorkee is 36·69 and of Muhammadpur 37·28 inches. Further, the annual fluctuations are often considerable, but seldom very marked. During the period of 46 years falls in excess of the average to Rainfall.

the extent of 25 per cent. have occurred on only five occasions, and seven times there has been a defect to the same extent. The years of unusually heavy rainfall were 1863 with 47·64 inches, 1884 with 48·57, and then came 1894, the wettest year on record in these provinces, when no less than 76·15 inches fell at Nayashahr and 72·5 at Hardwar, the average for the district being 56·88. The following year was also abnormally wet, with an average of 50·7: and on this occasion Saharanpur itself received the greatest fall known, the total for the year being 63·64 inches. The last year of pronounced excess was 1906, with an average of 48·5 inches, the total being swollen by unusual rain in the east, Roorkee itself recording as much as 57·09 inches. The smallest fall ever known was 20·7 inches in 1868, the total at Deoband on that occasion being only 13·6; and matters were rendered much worse by the comparative failure of the rains in the ensuing year, when the average was 26·18 inches. The next occasion was the famine year of 1877, when the district average was 22·55 inches; the southern and western tracts suffered the most, the deficiency being greatest at Nakur, where 18·7 inches fell. There was a considerable shortage in 1883, when the district rainfall was 27·54 inches, but this was fairly distributed and the results were unimportant. In 1896 Saharanpur fared better than many districts, though in the extreme south the rainfall was in great defect, especially in the south-western corner, Salempur and Kuakhera receiving less than 17 inches as against the district average of 26·78. The year 1899 was actually drier, as only 22·2 inches fell, and on this occasion Muhammadpur, Salempur and Saharanpur recorded the smallest amounts, the fall of 18·7 inches at the headquarters station being by far the lowest on record. The last dry year was 1905 with 24·35 inches; but then again the deficiency was abnormal only in the southern parganas, which are more or less protected by the canals.

Health.

Some idea of the healthiness or otherwise of the district is to be derived from an examination of the vital statistics. These have been compiled from an early period, but the returns up to 1871, when a new system of registration was introduced, are quite unreliable. The average death-rate from 1871 to 1880 was 30·51 per mille, and this is probably below the mark on

account of defective entries during the first half of the decade, especially in the face of an altogether abnormal rate of 53·37 in 1879 and 42·34 in the following year, when the mortality from the fever was extremely high. During the following ten years ending in 1890 the rate was 38·3, and this too was unduly swollen by the terrible epidemic of fever in 1884, when the death-rate was 57·17 or higher than in any year before or since. From 1891 to 1900 the average rate dropped to 36·25, reaching an abnormal figure only in 1894, when the unprecedented rainfall occasioned widespread sickness. The rates from 1901 to 1907 were again above the average, the mean being 42·51 annually. On the other hand the birth-rate is distinctly high, averaging 41·1 per mille from 1881 to 1890 and 42·01 during the ensuing ten years. A table given in the appendix shows the returns of births and deaths, together with the resultant rates, for each year since 1891.*

Fever. A second table shows the causes of deaths under the principal heads.† From this it appears that fever invariably heads the list; and this is actually the case, although the term is very wide in its application and generally includes all cases of diseases in which fever is a prominent symptom. Throughout the tract malarial fever is rife, and epidemics have periodically occurred from time immemorial. From very early days Saharanpur had an evil reputation on this account, and though a marked improvement was at one time observed, the returns of late years tend to show that it was but temporary. Some parts of the district are, no doubt, worse in this respect than others, particularly the lowlying lands along the Ganges and Jumna and the forest belt in the north; but almost everywhere the drainage is indifferent, and complaints have frequently been made against the canals on the ground that they render the country unhealthy by raising the water-level. On an average the mortality from fever for the ten years ending in 1890 was 32,242, or 86·12 per cent. of the total number of deaths recorded; in the following decade it was 34,326 or 94·46 per cent.; and during the last six years it was no less than 40,388 or 91·1 per cent.

Cholera. Cholera appears to be endemic, for although on several occasions the mortality from this cause has been quite insignificant,

* Appendix, table III. | † Appendix, table IV.

in no year has the district been free. The disease can frequently be traced to the great religious gatherings at Hardwar, whence it is rapidly disseminated all over the country, the process being facilitated by the height of the water level and the general use of unprotected wells for drinking purposes. At the same time the mortality seldom assumes alarming proportions. The worst epidemic on record occurred in 1872, when 1,351 persons died of cholera, and the only other occasion on which the death-roll exceeded one thousand was in 1887, when 1,254 fatal cases were reported. The average for the ten years ending in 1890 was only 230 annually, or ·57 per cent. of the total mortality. Several minor epidemics occurred during the ensuing ten years, but the average was no more than 178 annually, or ·48 per cent. of the whole. Even in 1892, when cholera broke out at Hardwar with the result that the great Mahabarni fair was broken up and the people sent off by rail before the principal bathing day, the number of deaths in Saharanpur was but 398, although the disease spread over almost the whole of India. Of late years there have been several small epidemics, notably in 1903, when the deaths numbered 563.

Small-pox.

Similarly small-pox is never entirely absent, although its ravages have been reduced to a minimum by the spread of vaccination. At the present time it is hardly possible to realise how greatly the people of this district suffered from this disease; but some idea of its virulence can be formed from the fact that between 1867 and 1873 no fewer than 20,942 persons, or nearly 3,000 annually, were said to have died of small-pox, and that at a time when registration was extremely defective. There was a considerable epidemic during the famine of 1877 and the following year, and the disease again broke out in 1883: on the latter occasion it ran on for two years, and the total mortality was 3,480. Nothing of the sort has since been experienced, and only in 1890, 1896 and 1897 has the number of deaths exceeded one hundred. From 1892 to 1900 the annual average was but 63, while in the next six years it rose no higher than 27 per annum. The improvement is hardly surprising in view of the vaccination returns. Operations, hitherto confined to the dispensaries, were first undertaken by Government about

1862; but for some years the measure failed to achieve popularity, and it was not till 1873 that its advantages began to be generally appreciated, the number of persons vaccinated in that year being 24,217 as compared with 8,189 in 1872. From that time forward progress was assured, and its rapidity is amply illustrated by the returns. From 1871 to 1880 the annual average was 24,555 primary operations; for the next ten years 25,195; for the decade ending in 1900 it was no less than 32,472, while in the last six years it has reached the remarkable figure of 38,405. This means that in the past thirty years some 942,000 persons have been vaccinated, a figure nearly equivalent to the total population of the district; so that in any case it may be safely assumed that three-fourths of the inhabitants are protected. In the last seven years alone more than 26 per cent. of the inhabitants have been vaccinated, and in very few other districts have better results been achieved. Vaccination is compulsory only in the four municipalities of Saharanpur, Roorkee, Deoband and Hardwar: operations are conducted under the direction of the civil surgeon by an assistant superintendent and 20 vaccinators, the annual cost being about Rs. 2,600, which is met partly by Government and partly from local and municipal funds.

Other diseases.

Among other diseases mention may be made of dysentery and bowel complaints, which are very frequent and in most cases may be considered the result of malarial fever. Of much more importance is plague, which of late years has added materially to the death-rate. It first made its appearance in April 1897 during the great fair at Hardwar. The disease is supposed to have been imported by pilgrims from Sindh, where it was then rampant, and in spite of every effort made by the authorities thirteen deaths occurred before its disappearance in the beginning of June. A second outbreak occurred during the cold weather at Kankhal and in some villages near Hardwar, and steps were taken immediately to prevent its spread. The whole of Kankhal had been evacuated on the first appearance of plague, and the reopening of the town was delayed, while the medical and executive staffs were largely increased. No further cases occurred in Kankhal, but a solitary death was reported from Jwalapur on the 9th of January 1898. As no other outbreak took place the

people of Kankhal were allowed to return to their homes on the 15th of February, but in the meantime fatal cases of plague occurred at Jwalapur and several villages in the neighbourhood. The patience of the people was greatly tried by the various preventive measures, and matters came to a climax on the 31st of March when an attempt to remove a Brahman suspected of the disease from his house at Jwalapur to the hospital resulted in a small riot, and in apprehension of further disturbances two companies of infantry were despatched to the place from Meerut. This had the desired result, and with the advent of the hot weather the epidemic died out, the troops being withdrawn, in the beginning of May. With the end of this outbreak, in which 146 deaths occurred, plague disappeared from the district till the cold weather of 1902-03, when it broke out again with fresh vigour. The stringent measures at first adopted were now abandoned, and the disease has since raged throughout Saharanpur with increasing intensity in each succeeding year. During the cold weather of 1906-07 the mortality was enormous, though it did not attain to the appalling proportions reached in the adjoining district of Muzaffarnagar. Preventive operations have been confined to voluntary evacuation and disinfection, together with the destruction of rats, but the people have yet to learn that evacuation to be effective must be complete and that half-measures are merely futile.

Infirmities. Statistics of infirmities have been compiled at each census from 1872 onwards, but the results are not very instructive. The most common affliction is blindness, though this exhibits a constant tendency to decrease, probably on account of the practical disappearance of small-pox, from which blindness not uncommonly results. Deaf-mutes are fairly numerous, and if the usually accepted theory be correct, that goitre, which has a well-established connection with cretinism, is caused by drinking the water of snow-fed rivers, Saharanpur affords no exception to the popular rule. Insanity and leprosy are comparatively rare and are steadily declining; where, in the case of the former, there are so many and various contributing causes, generalisation is impossible, while the latter still remains an object of more or less empirical speculation.

CHAPTER II.

AGRICULTURE AND COMMERCE.

Cultivated area.

The early records of cultivation are not only extremely meagre, but in several respects they are also unreliable. At the first regular settlement the area under cultivation was 606,847 acres, but subsequently there were considerable changes in the area of the district on account of transfers to and from Muzaffarnagar which resulted in a net decrease in revenue and presumably in area as well, although the recorded total cultivation in 1848 was 681,117 acres. The village papers of 1853 showed 683,567 acres under tillage, but little reliance can be placed on this figure, since the chain survey of the same year gave a total of 774,253 acres, excluding the submontane tract and consequently the extensive jungle grants then in existence. Similar discrepancies are to be found in connection with the returns of 1866, the area being variously shown as 745,178 and 755,419 acres; though probably this is due to the fact that the former excludes the submontane lands and that the latter possibly refers to the whole district. The crop returns for the year 1869-70 give a total area of 812,657 acres, the net amount, after deducting the land double-cropped being 778,717 acres. This indicates very rapid progress, as indeed was only to be expected; for the district had suffered heavily in the past, at first from a faulty and unsympathetic revenue policy, and afterwards from the troubles of the Mutiny and the subsequent famine of 1860. Regular annual returns are not extant before 1884-85; but by that time, in spite of the retardation caused by the scarcity of 1877, a very marked extension of cultivation had taken place, the total for that year being no less than 850,712 acres. This appears to have been somewhat abnormal, since in the two ensuing years the average was but 824,263, and it was not till many seasons had elapsed that the old level was again reached. The ten years

ending with 1896-97 showed an average of 812,484 acres under tillage, though the figure would have been much higher but for the depression that set in about 1894, several seasons of unusually heavy rainfall being followed by the exceptional drought of 1896 and the resultant famine, which reduced the area in the last year to 739,651 acres, the lowest amount recorded for perhaps fifty years. The recovery, however, was immediate and complete, though the indifferent rains of 1899 checked the process to some extent. The average for the decade terminating in 1906-07 was no less than 859,290 acres, while in the last five years all previous records were surpassed, since the land under the plough averaged 875,053 acres, giving the remarkable proportion of 73·98 per cent. of the entire district, save for the area of reserved forest. In the parganas of Nagal and Deoband the ratio exceeds 85 per cent., and probably no other tract in the United Provinces can boast of a higher figure. The Haraura pargana is almost as fully developed, and Saharanpur, too, has more than 80 per cent. of its area under cultivation. The general average is the more noteworthy because in the whole of the Roorkee tahsil the average is but 67·54 per cent., the lowest place being taken by pargana Jwalapur with only 56·47. In the Nakur tahsil also pargana Gangoh has a very low figure, the land under tillage there being 62·57 per cent. of the whole; for this tract, like Jwalapur, consists largely of unculturable and precarious *khadir*. Further details will be found in the various pargana articles, and the general statement of area for 1906-07, when cultivation was more extensive than on any previous occasion, is given in the appendix.*

Waste land.

Under these circumstances it is but natural that a very small amount of land remains available for further reclamation. The average area described as culturable waste is 164,579 acres, or 13·91 per cent. of the district, excluding the forests as before: and even this is subject to large deductions. In the first place it includes groves, which cover 13,133 acres ; and, secondly, land prepared for sugarcane and other recent fallow which is left untilled under the ordinary system of rotation together make

* Appendix, table V.

up 36,812 acres. This leaves 114,634 acres, or 9·69 per cent. of the whole, described either as old fallow or as culturable waste, the classification being more or less arbitrary, though by far the larger amount comes under the former head. Such land is of very varying quality, and most of it is of little value, consisting as it does of dry and inferior sand, or of *dhak* and grass jungle, or of saturated and *reh*-infected ground in the river valleys or, again, of the ravine-scored edges of the uplands. Its nature is illustrated by its distribution: for three-fourths of the whole amount are to be found in the Roorkee and Nakur tahsils, and especially in the parganas of Gangoh, Jwalapur and Bhagwanpur; while little more than five per cent. of the remaining area comes under this category. As a matter of fact it can be safely asserted that further extension of tillage can only be achieved by the cultivation of land that is now generally regarded as too poor to yield a profitable return, and that the bulk of the area shown as culturable would, if not actually sterile, never repay the labour and expense of husbandry. The so-called barren area is very small, averaging 143,195 acres, and this includes 83,882 acres covered with water and 42,018 acres occupied by railways, roads, village sites, buildings and the like, leaving merely 17,296 acres that are said to be wholly unfit for cultivation. Even in the Roorkee tahsil, with its broken configuration and innumerable torrent beds, the proportion of barren waste is officially declared to be only 2·47 per cent. of the whole area; and the same figure is found in the riverain parganas of Nakur and Gangoh, in spite of the wide expanses of sour swamp and drifting sand that bears nothing beyond tamarisk scrub and coarse grass. In the rest of the district less than one per cent. is barren, and even the Sultanpur pargana has no more than ·3 per cent. of its area so described. For this reason it is necessary to treat waste, whether technically culturable or not, as a single class, for not only is the distinction in this district unimportant but in actual practice it can never be made on any uniform system.

Double cropping.

The increase in the productive capacity of the district is not solely to be measured by the spread of the cultivated area. In the past fifty years an immense advance has been made in the

matter of double-cropping, with the result that the gross outturn is very much larger than before, though as yet no signs are visible of any consequent deterioration of the soil. With a judicious rotation of crops no evil results need ensue, and the practice is obviously of great benefit to the cultivator. No reliable returns are in existence to show the exact amount of *do-fasli* cultivation in the past. The figures of 1869-70, as already mentioned, give a total of 33,940 acres, but this is almost undoubtedly below the mark. By 1884-85 it had risen to 154,053 acres, and in the next two years it averaged 117,255, representing somewhat over 14 per cent. of the net cultivation. For the ensuing ten years the average was 165,482 acres or 20·3 per cent., the highest figure being 241,368 acres, or 30·5 per cent., in the year 1894-95. This proportion has not been since exceeded, though the general average is now much higher than before. For the decade terminating in 1906-07 the average double-cropped area was 215,230 acres or slightly over 25 per cent. of the entire area tilled. In the last five years the proportion was a little higher than this, the average being 224,579 acres, while the total for 1906-07 was 248,242 acres—a greater amount than that recorded in any previous season. A good deal depends on the nature of the soil and the character of the crops grown. Double-cropping is necessarily restricted in those parts where much of the land is ordinarily under sugarcane, *arhar* or late rice, and consequently the amount of *do-fasli* is limited in the parganas of Nagal, Haraura and Deoband, while in Bhagwanpur and the Nakur tahsil, with the exception of pargana Sultanpur, the figure is below the general average. Relatively by far the largest area is in Faizabad, where 38 per cent. of the cultivated land bears a double crop, and then come Muzaffarabad and Rampur with 33, Sultanpur with 32·3 and Saharanpur with 31 per cent.

Cultivation.

Except in parts of the Ganges *khadir*, the circumstances of which have been already described in the preceding chapter, the system of agriculture in this district presents no peculiar features. Generally speaking, cultivation is most careful where irrigation is available; of a fair description in the unprotected upland estates; and inferior in the *khadir* and the submontane

tracts. There are, however, marked exceptions to this rule, and often the caste of the cultivators is of more importance than the natural advantages or otherwise of the soil. In some places the poverty or apathy of the people leads to the neglect of natural advantages, while elsewhere there is still a tendency to abuse the facilities of canal irrigation; and on the other hand some *khadir* and unirrigated estates are excellently cultivated. The rotation of crops, though guided in some measure by the season, is similar to that in vogue throughout the plains, and land is seldom left fallow for any length of time except in the more backward parts of the Ganges lowlands. The methods of husbandry and the implements in common use do not differ in any way from those adopted in other districts of the Meerut division, and call for no special description. The stock-in-trade of a cultivator consists principally in a plough and a pair of bullocks—though sometimes in the heavier lands as many as three yoke of oxen are to be seen at work at the same time—as well as a harrow, a mattock and the requisites for irrigation, though even these may be dispensed with if his fields are within the reach of canal water. It has been estimated that his entire outfit can be obtained for the sum of Rs. 100 or possibly less, though naturally much more has to be paid if animals of a superior description are desired.

Harvests. Of the two main harvests the *rabi* is the more important, at all events in so far as it covers the larger area. This was not always the case, and the change is due not to any diminution on the part of the *kharif*, but rather to the rapid expansion of the area under the spring crops that has made itself apparent during recent years, mainly as the result of the spread of the practice of double-cropping. Much too depends on the nature of the season, for the annual variations are very marked: and even as late as 1902-03 the *kharif* acreage was very much larger than that of the *rabi*. Unfortunately no earlier returns are available than those of 1869-70, and these are somewhat incomplete. It would appear that then the total area sown for the spring harvest was 383,594 acres, as compared with 440,937 acres under autumn staples, including sugarcane and *arhar*. The predominance of the latter was still obvious, though

much less marked, at the time of the last settlement, when the *kharif* covered 483,850, and the *rabi* 383,594 acres; but the supremacy of the spring harvest became fairly established after the famine of 1897, and the position is reversed only by the accident of abnormal seasons. During the five years ending in 1906-07 the *rabi* averaged 569,728 acres, the total rising from 532,020 in the first to 590,161 in the last year; while in the case of the autumn crops the annual average was 523,409 acres, the extremes being 457,976 in 1905-06 and 564,681 acres in 1902-03. The relative position is not identical in all parts of the district, for in those parganas which show a comparatively small proportion of double-cropped land the *kharif* still occupies the larger area, this being the case in Haraura, Nagal and Bhagwanpur, while in the rest of the Saharanpur tahsil the figures for the two harvests are approximately equal. The *zaid* or intermediate harvest is very unimportant in this district, the average area being no more than 5,233 acres. The produce consists mainly in vegetables and melons, of which the latter are grown on the sandy banks of the rivers in all parganas, the largest acreage being found in Jwalapur.

Rabi crops.

Of the *rabi* staples by far the most important is wheat, from which the wealth of the district is mainly derived. The increase in the wheat area that has taken place of late years illustrates the growth of the export trade that has come into being since the introduction of the railway. Even as late as the last settlement the land under wheat sown by itself, and consequently destined for the foreign market, amounted to no more than 251,456 acres, whereas the present average is 334,267 acres or 58·67 per cent. of the entire *rabi* area. The crop requires a good soil, careful tillage and an assured supply of irrigation, so that it practically monopolises the bulk of the best loam, although a certain amount is grown dry on light upland warn. In every pargana it constitutes the chief product of the spring harvest, but the proportion varies to a considerable extent in different parts. Throughout the Deoband and Nakur tahsils the general average is largely exceeded, the highest figure being 65·4 per cent. in pargana Nagal. The lowest, on the other hand, occurs in Faizabad, Roorkee and Jwalapur,

as is only to be expected, the first having no more than 45·15 per cent. of the *rabi* area under pure wheat. In the inferior soils which are yet capable of producing wheat the crop is often sown in combination with barley and gram, forming the mixture known as *gochai*: and this is not an article of export, but is used for food locally. On an average it covers 56,233 acres or 9·87 per cent. of the *rabi*; the proportion rises to 16·78 in pargana Saharanpur, 15·32 in Roorkee and 13·3 per cent. in Jwalapur, while elsewhere it is generally below the average, especially in the main wheat tracts of the south and south-west. In somewhat over half the area the mixture consists of gram and wheat only, but in every pargana there is a certain amount of land under all three crops in combination, especially in the Saharanpur and Roorkee tahsils. Barley and gram, called *bijhar*, are found in the poorer soils, but the mixture is unimportant, constituting only 3,991 acres or ·7 per cent. of the harvest on an average. Barley sown by itself is confined to the light soils in which means of irrigation are not available, and averages 21,807 acres or 3·83 per cent. of the whole. The highest proportion is to be found in Sultanpur and Jwalapur, but generally the distribution is remarkably even. The area has decreased of late, and this may be taken as a favourable sign, indicating the replacement of the inferior grains by the more valuable staples. In the absence of any detailed statistics of former years it is impossible to establish a satisfactory comparison between the present and the past; but it is worthy of mention that in 1806 wheat and barley covered some 200,200 acres, yielding 28 per cent. of the total revenue, that in 1838 these cereals comprised some 30 per cent. of the whole cultivated area, and in 1869-70 they occupied 262,652 acres in all, as against a present average of 415,700 acres. The remaining *rabi* area is taken up for the most part by gram, and this crop, together with peas, which are grown to a very small extent, owing principally to their susceptibility to frost, covers on an average 116,165 acres or 20·39 per cent. of the harvest. Gram is sown on every kind of soil, with or without irrigation, and most commonly follows some *kharif* staple as a second crop, to which fact may be assigned its immense increase during the past half-century. The area in 1869-70 was

but 49,629 acres, while at the last settlement it had risen to 88,420 acres. The highest figure on record was that of 1906-07, when no less than 130,787 acres were under this crop. The proportion varies to a considerable extent in different parts of the district, the Faizabad pargana coming first with 33·48 per cent. of the *rabi* area under gram, followed by Deoband and Muzaffarabad with over 25 per cent. On the other hand it is far below the average in the Nakur tahsil and in the parganas of Jwalapur and Saharanpur, the last showing a percentage of only 13·1. The crops mentioned above together constitute 93·46 per cent. of the whole area sown in this harvest, and the rest are of little importance, only in the Saharanpur tahsil and the parganas of Manglaur and Sultanpur is there any appreciable balance, and there it consists mainly of oats, for which there is a steadily increasing demand, *masur* or lentils, vegetables and garden crops, especially in the form of potatoes and turnips. The figures for each tahsil are given in the appendix, and further details will be found in the various pargana articles.*

***Kharif* crops.**

The chief *kharif* crop is rice, which averages 24·32 per cent. of the harvest, as regards the area occupied, the total being 127,294 acres. This may be contrasted with the 72,644 acres sown in 1869-70, though on the other hand there has been a decrease since the last settlement, when 146,035 acres were under this staple. Of the present amount 63,983 acres, or little more than half, is sown with the late or transplanted variety, which is the more valuable, yielding a larger outturn of greatly superior grain. The proportion varies in the different parganas with the nature of the soil, and the same condition governs the general distribution of the crop in the various parts of the district. In pargana Sultanpur no less than 41·8 per cent. of the *kharif* harvest consists of rice and in Rampur 39·63 per cent., while the figure is much above the general average in Manglaur, Haraura and Bhagwanpur. On the other hand there is very little rice in the submontane parganas, notably Faizabad and Muzaffarabad, and there it is almost wholly confined to the early variety sown on unirrigated land. In the Nakur tahsil, too, the area is relatively small, but here early rice is

* Appendix, table VI.

seldom to be seen. The two main varieties are subdivided into an almost infinite extent, and it is impossible even to enumerate the different species recognised by the people. The best of all is that known as *chahora*, distinguished by its long drooping ears, which is grown in the *dakar* tracts of Sultanpur and in the villages lying along the old bed of the Jumna. A great reputation also is held by the rice produced along the Katha in the Nakur tahsil, that grown around Titron being especially celebrated. Next to rice comes *juar*, which now averages 113,520 acres or 21·7 per cent. of the *kharif* area, though a large amount of this is sown in combination with *arhar*, which remains on the ground till the spring, and much too is grown solely for fodder. The proportion is highest in the parganas of Deoband, Nagal and Nakur, in each of which it exceeds 30 per cent., while it is much below the average in the Roorkee and Saharanpur tahsils and also in pargana Sultanpur. In the inferior soils the place of *juar* is taken by *bajra*, which again is commonly mixed with *arhar* and averages 69,181 acres, or 13·22 per cent. of the whole. The crop is more generally grown in the northern parganas than elsewhere, while in the Deoband tahsil it is confined to the narrow strips of sandy land along the river banks. A notable feature in the agriculture of the district is the great increase of the area in maize, which now averages 83,430 acres or 15·9 per cent. of the *kharif*, as compared with 45,250 acres at the last settlement, the amount having nearly doubled in 15 years. The crop is cultivated without difficulty and yields a profitable return, but its great advantage lies in the fact that it is among the first to reach maturity, and consequently is less liable to suffer from an early cessation of the rains, while at the same time it leaves the ground free for preparation for the *rabi* while other crops are still standing. To the spread of maize may be attributed the decrease in the rice area, and the substitution is generally to be welcomed. Maize is grown most extensively in the submontane parganas and the Nakur tahsil, the area in pargana Faizabad being no less than 37·3 per cent. of the entire *kharif*; while on the other hand it is quite unimportant in the heavy rice lands of Deoband, Nagal and Manglaur. One of the most valuable *kharif* products is

sugarcane, which now averages 37,492 acres, or 7·16 per cent. of the area sown in this harvest. Its distribution is very uneven, as the proportion rises to 13·4 per cent. in pargana Manglaur, and is about 10 per cent. throughout the Deoband tahsil and the Saharanpur pargana, while almost as much is grown in Jwalapur, though the quality there is distinctly inferior. The smallest amounts are to be found in the Nakur tahsil and the unirrigated lands of the north. In 1806 it was estimated that some 14,000 acres were under sugarcane in the district, while at the first regular settlement the crop occupied five per cent. of the total cultivated area, or roughly 30,000 acres. In 1869-70 the total was 24,421 acres, and from that time onwards the increase was very rapid, so that by the last settlement the figure had risen to 41,600. Subsequent years have witnessed a slight decline; but the variations are great, for as lately as 1904-05 this staple occupied 47,580 acres. Several varieties are grown in the district, the best being that known as *menthi*, which is found in the neighbourhood of Titron and Libarheri, while cane of an excellent description is produced along the upper course of the Jumna canal. Another crop of considerable importance is cotton, which alone and in combination with *arhar* covers 42,348 acres or 8·1 per cent. of the *kharif* area, the largest amount being found in the northern parganas and the smallest in the Deoband tahsil. These crops together comprise 90·42 per cent. of the total area, and consequently few others possess any importance. Oilseeds are rarely grown and indigo has almost vanished, the bulk of the remaining area being taken up by vegetables and garden crops, and by the coarser autumn pulses known as *urd*, *mung* and *moth*, which are grown in all parganas, but especially in the Nakur and Deoband tahsils.

Botanical gardens.*

Though not connected directly with the agriculture of the district, mention may here be made of the botanical gardens at Saharanpur. These are situated about a mile north of the railway station, between the Chakrata road and the jail, in close proximity to the city and civil lines. The place is admirably laid out, with fine avenues of timber and ornamental

* This article has been compiled from a note kindly supplied by Mr. A. C. Hartless, the present superintendent.

trees, tanks of water, shrubberies and flower beds, and though no longer treated as a pleasure garden to the same extent as was the case in former days, it is still a most attractive and picturesque spot. At the present day the chief value of the garden lies in the production and acclimatisation of fruit trees, vegetables and flowers, its geographical situation being peculiarly well suited to this purpose. From both the botanical and the commercial aspect, the Saharanpur garden holds the premier position among similar institutions in India, its business relations extending not only to all parts of the peninsula and Burma, but also to Egypt and South Africa. The area of the garden proper is about 125 acres, exclusive of 38 acres known as the farm, which is used for the production of vegetable seeds. Within the garden are the extensive fruit and plant nurseries, glass and chick houses for propagation, and a large chick house known as the conservatory for ornamental plants requiring protection from the hot sun and frost.

History.

It appears that a garden known as the Farhat-bakhsh was laid out by Intizam-ud-daula, who held this district in *jagir* some time prior to 1750, and that it became a favourite resort of the Rohilla chieftains. In 1789 it was renovated by Ghulam Qadir, who endowed it with the revenues of seven villages, five of which were resumed by the Marathas, so that at the cession the proceeds of only two, amounting to some Rs. 1,500, were available for its support. In 1817, at the instance of the local agents, an additional grant of Rs. 900 per annum was made and the superintendence was assumed by Government, the garden being placed in charge of the civil surgeon, Dr. Govan, who was succeeded in 1823 by Dr. Royle. The yearly allowance was afterwards increased to Rs. 5,400, and during Dr. Royle's management the area was enlarged, a European overseer was appointed, a grant was made for the purchase of seeds in England, and a subordinate station was acquired at Mussooree, so that by 1830 the sanctioned annual cost had risen to Rs. 10,780. In 1831 Lord William Bentinck visited the garden, in which he took a lively interest; but he considered that it might be conducted on more economical lines, with the result that the overseer was dismissed and the expenditure reduced to Rs. 4,200 per annum,

of which Rs. 2,400 were provided by the endowment and the contribution by the local agents. In the same year Dr. Falconer took over charge, and his representations as to the impossibility of conducting the work of the gardens satisfactorily on the sum allotted led to the recommendation of an increased grant by Lord Auckland in 1839, with the result that a further sum of about Rs. 8,350 per annum was sanctioned in addition to an allowance of £ 25 per annum for the purchase of English seeds and Rs. 75 per mensem for painters. Dr. Falconer was succeeded in 1842 by Dr. Jameson, the first superintendent to devote his whole energies to the garden. He remained in charge, save for two periods of furlough in 1861 and 1868, till the beginning of 1876, and during that period were started most of the tea gardens in northern India. In 1876 Mr. Duthie became superintendent, retaining the post till 1887, when it was given to Mr. Gollan, who for eight years had been head gardener. On the latter's transfer to Lucknow in 1904 his place was taken temporarily by Mr. H. M. Leake, the Economic Botanist to the local Government, and from 1906 the present superintendent, Mr. A. C. Hartless, has had control of the gardens. Their character was to some extent altered in 1887, since from that date it has been less of a purely botanical and more of a commercial nature.

Scope of operations. One of the primary objects of the gardens was the culture of medicinal plants for the supply of drugs to the medical departments. The first of these to be taken up was henbane (*Hyoscyamus niger*), which was introduced by Dr. Govan and is still grown largely for the various medical departments, the estimated saving to Government being between Rs. 2,000 and Rs. 3,000 yearly. Many other drugs were afterwards grown and supplied, but in all other cases their cultivation has been discontinued. It was owing to the desire of extending the production of drugs that the Mussooree branch was established in 1826. The latter garden, of which the history belongs properly to that of Dehra Dun, had a continuous record up to 1908, when it was abolished in favour of one near Naini Tal. To it belongs the credit of introducing into India the majority of the fruit trees obtained from temperate climates. The attempt to grow cinchona was first made in 1863 but proved a failure,

since the moist heat of the rains and the cold of the many experimental situations in the hills proved equally fatal to the plant, and the persistent efforts were abandoned in 1873. Among, the successfully-cultivated drugs may be mentioned Aconite Colocynth, Jalap, Taraxicum, Digitalis and Kamilla powder *(Mallotus philippinensis).* Others which have proved more or less unprofitable include Senna, Ipecacuanha, Belladonna, Valerian and Rhubarb. Another branch of the operations which dates from the earliest times is the collection of seeds from all parts of northern India for foreign countries and especially England, where they were at first distributed through the medium of the India Office. This exportation of indigenous seeds has gone on continuously and extensively till within recent years, while even now it is maintained for the purpose of exchange with botanic gardens all over the world. The collection of seeds necessitated that of specimens for identification, resulting in the formation of a herbarium, to which constant additions have been made by each successive superintendent till its final transfer to the Forest School at Dehra Dun in 1908. The supply of acclimatized English seeds for soldiers' gardens has been carried on since Dr. Jameson's day, and the value of the seeds thus distributed free of cost to soldiers' hospitals and similar institutions was Rs. 3,106 in 1906-07, including Rs. 701 for imported seeds of plants that do not bear seed in India. Similarly the supply of trees and seeds for canal banks dates from 1827, and all the plantations along the canals in northern India have been stocked from this garden. For nearly thirty years Dr. Jameson was superintendent of canal plantations, and for a long period the subordinate officials in charge of these plantations were trained at Saharanpur. The production of trees for roadside planting was also one of the duties of the institution, and for this purpose a special nursery was maintained ; while grants of trees were made to almost every public garden in the North-Western Provinces and the Punjab, as well as to civil officers, who also received large quantities of agricultural and horticultural seeds for public purposes and for distribution to *zamindars.* The free issue of plants and seeds to the general public ceased in 1869, when the gardens first began to assume a commercial character. Since that date the demand has

steadily increased and the business is now the largest of its kind in India. In 1906-07 the quantities sold were 17,136 fruit trees, 55,179 other trees, plants and shrubs, principally agaves, strawberries and ornamental varieties, as well as 9,566lbs of seeds. The important place taken by fruit trees has always been a marked feature of the gardens, to which Saharanpur is entirely indebted for its reputation as a fruit-growing district. As early as 1866 Dr. Jameson counted upwards of 700 gardens within a radius of five miles from the city, and nearly all were stocked from the Government gardens. The institution, too, has from the first been most valuable as a training school for gardeners, and even to-day requisitions for experienced men are received from such distant places as Burma, Uganda and Baghdad. Under the present system, inaugurated in 1907, the pupils under instruction form three classes. The first comprises students from public schools, both European and Indian, who have to go through a four-years' course terminating with an examination on behalf of the Royal Horticultural Society, in order to qualify as overseers for public gardens and the like. The second consists of candidates for the post of *chaudhri* in such gardens. These have a course of three years, while the third class is that of the *malis*, who are the ordinary boy apprentices of the gardens.

Experiments.

Mention has already been made of the cultivation of medicinal drugs and also of exotic fruit trees. In the case of the latter importation was first undertaken in 1838, and since that time has been carried on steadily. The bulk of the importations were made on account of the hill gardens, but subsequently it was discovered that most varieties could be grown successfully at Saharanpur. At the present time no fewer than 37 species and 287 different varieties are grown here. Returns by species are available from 1879 to 1901, and during that period nearly 163,000 trees of the more important kinds were distributed, principally mangoes, plums, oranges, peaches, loquats, limes, apples and pears. Among the more recent successful introductions are the La Conte pear, the only variety that ripens in the plains, and the Japanese persimmon, a fruit combining a delicious flavour with excellent keeping qualities. Reference also has been made to the acclimatisation of flower and vegetable seeds for

hospitals and military gardens. Of more economic importance have been the trials of cereals, fibres, fodder, timber and other exotic products. Experiments in purely agricultural crops were conducted here for many years, but were discontinued with the establishment of agricultural stations in various parts of the country. Fodders of many different varieties have been tried with more or less success, especially in the case of guinea grass, lucerne and teosinte; but they cannot compete with some of the indigenous grasses, the seeds of which are largely collected for distribution. Among the principal timber trees introduced from other countries are the mahogany and the eucalyptus. The former was first brought here from the West Indies in 1828; but, though some very fine specimens have been raised, the tree does not yield seed in India, and the stock has to be replenished yearly from abroad. Many kinds of eucalyptus have been tried, but now only some six varieties are grown for distribution, the demand being very extensive. A great deal of attention has been paid at various times to fibres, both exotic and indigenous, and the most successful experiments have been those connected with rhea and agave, which are exported from the gardens in steadily increasing quantities. Among other products mention may be made of the establishment of the sweet chestnut, now so common in the Dun and elsewhere, the cultivation and distribution of countless mulberry trees for sericulture, and trials of coffee, tobacco and tapioca. But the grandest work of acclimatisation as yet achieved at Saharanpur and by the garden staff in other parts is that of the tea plant. Its introduction into northern India was first suggested by Dr. Royle in 1828, and operations were conducted on a small scale by Dr. Falconer; but it was Dr. Jameson to whom the real success of the experiment must be attributed, and his achievements in this direction were described in the report of 1876-77 as the most remunerative enterprise carried out in India under the British Government. The history of the tea gardens does not belong to this district, but no account of the Saharanpur institution would be complete without a reference to the great work on which Dr. Jameson was engaged for more than thirty years.

Finance.

Although not intended in its inception as a profitable undertaking from a commercial point of view, the gardens have for

long yielded a substantial profit. In 1906-07 the total expenditure, including that of the Mussooree branch, was Rs. 27,707, while the actual cash receipts were Rs. 34,896, to which should be added Rs. 8,913 in the shape of indirect or book receipts from the various Government departments. An important aspect of the gardens to which no reference has yet been made is their value as a bureau of horticultural information. Much of the time of the staff is taken up in replying to questions and in giving advice on every subject in any way connected with the operations of the institution; and probably no part of the work is held in greater esteem, especially by the native community.

Irrigation.

Facilities for irrigation differ greatly in various parts of the district. Where canal water is available, Saharanpur is fully as well supplied as the rest of the Doab, but there are considerable stretches of country which are not reached by the canal, and these have to depend on wells and natural sources. Moreover, in the submontane belt, owing to the immense depth of the water level, the construction of wells is impossible, and the rapidity of the slope affords no opportunity for the collection of the surface drainage in pools and depressions. This tract has consequently to depend wholly on the rainfall, which in normal years is much heavier than in the south, but a failure in the rains must involve extensive loss. On the other hand, irrigation is seldom required in the lowlands of the Jumna and Ganges, where the spring level is very high and the soil retains sufficient moisture for the spring crops: where necessary, wells can be dug for watering the superior staples, although in parts of the Roorkee tahsil the shifting nature of the sandy subsoil renders their excavation impossible. The total irrigated area of the district, as calculated from the returns of the five years ending in 1906-07, since statistics of a single season are often deceptive, averages 168,886 acres, which is equivalent to 19.3 per cent. of the area actually under cultivation. The tracts bordering on the Eastern Jumna canal show by far the highest proportions, as the percentage is 54·76 in pargana Rampur, 40·1 in Saharanpur, 39·81 in Gangoh and 27·76 in Nakur, despite the wide extent of *khadir* land in the last. Next come Deoband and Manglaur with 28·35 and 24·26 per cent., respectively, these parganas being traversed

by the Deoband branch canal; and besides these Sarsawa alone shows a figure exceeding the general average. Nagal and parts of Sultanpur are fairly well provided, and the same may be said of the northern portion of Jwalapur, which is supplied by several small distributaries of the Ganges canal; but in the rest of the district irrigation is extremely scarce, the Haraura and Faizabad parganas having less than five per cent. of their cultivated area irrigated, while in Bhagwanpur no more than 2·7, and in Roorkee and Muzaffarabad less than one per cent. of the land under tillage is watered by artificial means. No satisfactory comparison of past and present conditions can be established, owing to the fact that in early days it was customary for assessment purposes to record as irrigated all arable land that was within reach of water. Even at the last settlement this system was adopted in a modified form, the wet area including not only those fields found to be irrigated at verification, but also all land that had been watered in the three preceding years. In the case of the canals alone are actual annual figures available and these will be mentioned later; though it should be noted that fields watered more than once in the year from the canals are counted twice or more often, as the case may be, and consequently the statistics fail to show the true wet area. Returns for the whole district are extant from 1884-85 onwards, in which year 97,495 acres were irrigated, or 11·46 per cent. of the net cultivation. The average proportion for the next two years was 12·65 per cent., so that the improvement that has since been effected is sufficiently obvious. From 1887-88 to 1896-97 the annual average was 113,920 acres or 14·12 per cent. of the area cultivated, the total ranging from 54,846 in the unusually wet season of 1894-95 to 188,923 acres in 1896-97, a year of general drought. This famine appears to have had an immense effect on irrigation in all its branches, for subsequent years witnessed little diminution in the area. The average for the ensuing decade was 156,562 acres, and the proportion to the area under tillage 18.32 per cent. The total exceeded 200,000 acres in 1906-07, while the maximum was reached in 1899-1900, another dry year, when irrigation extended to no less than 221,638 acres or 27·04 per cent. of the total cultivation.

Sources of supply.

These figures show clearly that the district has made great strides in the direction of immunity against drought during the past twenty-five years, and the credit for this result must be assigned primarily to the Canal department. In 1884-85 canals supplied 71,916 acres; during the next two years the average was 75,266 and for the following decade 80,724, while for the ten years ending in 1906-07 it was no less than 121,550 acres annually. Nor has this increase been accompanied by any diminution in the area irrigated from other sources, but rather the reverse. It is true that in the canal-irrigated tracts wells have largely gone out of use, and the labour involved has become distasteful to the people; but elsewhere the stress of scarcity has taught the cultivators to rely more than ever on wells, and to make the fullest use of the streams and natural reservoirs. The area watered from wells, which from 1884-85 to 1886-87 averaged 25,747 acres, rose in the next ten years to 28,984 acres, while in the decade terminating in 1906-07 it was as much as 43,878 acres. The corresponding figures for tanks and other sources were 3,433 acres in the first three years, 4,212 acres in the ensuing period, and in the last ten years 5,583 acres. Irrigation from wells is most extensively practised in the tracts of the Nakur tahsil that are beyond the reach of the canal distributaries, and in pargana Nagal; while the tanks and streams are utilised to a small extent in all parts. Details of the sources from which irrigation is obtained in each pargana will be found in the several articles.

Eastern Jumna canal.

Of the two main lines of canal the eastern Jumna has the prior claim to notice, being one of the few great irrigation works that can trace their existence to a period antecedent to British rule. It is said to have been originally designed by Ali Mardan Khan in the days of Shahjahan, though more probably its construction was not effected till the reign of Muhammad Shah. The alignment was faulty, and no great stream of water could have been carried down the channel for any lengthened period; and it is certain that the works were abandoned in the time of Ahmad Shah. There is a tradition that Zabita Khan re-opened the canal and brought water as far as Ghausgarh in Muzaffarnagar; and one story relates that in this

way much damage was done to the towns of Behat and Saharanpur. In 1809 Lieutenant James Tod was deputed to survey the canal, and this task was completed in the following year. Nothing was done, however, and a fresh examination by Major J. A. Hodgson in 1814 showed that the channel was obliterated in many places and elsewhere was covered with jungle. A third survey was ordered in 1822, and the next year Captain Robert Smith was appointed to superintend the work of reconstruction which was estimated to cost Rs. 2,03,633. Excavation was then commenced, and in 1829 Captain Proby Cautley, who had been engaged on the canal for four years, took over charge. The work was opened on the 3rd of January 1830, the expenditure up to that date being Rs. 4,37,966. As originally constructed the canal was a single channel without distributaries. It was filled, as at present, by forcing water down the Budhi Jumna as far as the beginning of the excavated channel at Nayashahr; and this was found to be easily and cheaply effected by running out a temporary spur of gabions and boulders at Khara, the supply being increased when necessary by a second spur at Faizabad, where another spill channel leads into the Budhi Jumna from the main river. All that was required in the way of permanent headworks was the dam and regulating bridge at Nayashahr, where an escape was made to pass the surplus water into the river. As the latter reached the Jumna many miles below the intake of the western Jumna canal, a second dam was constructed in 1843 at Faizabad, so as to enable this surplus to be utilised. No modification in the headworks was found necessary till the commencement of the Tajawala weir for the western canal in 1875, when the Punjab Government constructed a new head and regulator for the eastern Jumna canal at Nayashahr, and excavated a fresh supply channel. These works were not used, however, till it became necessary to protect the Tajawala weir by an embankment, which involved the closing of the old alternative supply channel at Faizabad. It was then agreed that the Punjab Government should bear the cost of the alteration, but that the eastern Jumna canal should contribute Rs. 8,000 annually towards the maintenance of the works.

Main canal.

The main channel followed closely the alignment of the old Muhammadan work, and from Balpur onwards took the course of the Shamli *nala*. It was found at first that the slope was too steep, and to remedy this falls were introduced at suitable places: further modifications proved necessary on account of the heavy deposits of silt in the numerous bends of the old channel, and in 1852 Colonel Morton realigned the canal below Balpur. The design still proved faulty, and between 1864 and 1871 the levels were readjusted and the sectional area increased. Further rectifications were made in the ensuing twenty years, the chief being the construction of a new fall at Reri. Other difficulties were created from the first in connection with the management of the various hill torrents crossing the canal in its upper reaches. The original works provided for this purpose included the Raipur escape for passing the Raipur floods into the Budhi Jumna, the Naugaon dam for the Naugaon and Jatonwala torrents, and the Maskara dam, a short distance below the latter. The Raipur escape proved badly situated and too small, so that the floods had to pass down the canal to the Naugaon dam, and eventually it proved necessary to excavate a regular escape channel, with a regulator and escape head, in order to carry the torrent across the canal and directly into the Budhi Jumna. The Naugaon dam did its work well enough for a long time, but subsequently additions and protective works were added to hold up the dam till relief was afforded by the Raipur escape. The Maskara dam required very slight modifications and, with an improved waterway and a retaining weir, caused no further trouble. The original scheme of construction was simplified by the abandonment of the original scheme of a navigation channel. Locks had actually been constructed by Colonel Cautley; but the gates were never fitted, and the project was dropped when it was found that an immense sum would have to be expended before the waterway could be made efficient, especially as there was no prospect of a profitable return.

Distributaries.

When first constructed, irrigation was effected directly from the canal, water being supplied to the village watercourses through openings in the bank. This led to much waste, and the area commanded was small. An attempt at extension was made by

utilising the natural drainage lines, across which earthen dams were thrown: but the channels quickly silted up and it became necessary to excavate regular distributaries. These were made by Colonel Cautley at the cost of the *zamindars*, who contributed nearly four lakhs for the purpose. The system, however, proved unsatisfactory both on account of unequal distribution and because the shareholders objected to the charges for maintenance and repairs levied, not in proportion to the area irrigated but according to the number of shares held by each owner. To meet this the rates were raised in 1865, and thenceforward all the expenditure was borne by Government. The distributaries, too, had been constructed to suit the convenience of individual landowners and had to be remodelled: there were far too many separate heads supplying short lines which rapidly became choked with silt. Consequently a smaller number of subsidiary systems was preferable, and by the adoption of this policy the number of heads was largely reduced. These systems are constantly being extended by the construction of additional branches, although even now in dry years the canal is unable to meet the demand for water, the maximum capacity of the distributaries already in existence in this district being very little short of the 1,733 cusecs which is the full supply discharge of the canal. In the first portion of the canal small and unimportant distributaries, known as the Raipur, Alampur, Gandewar and Behat, take off the right bank. At Kalsia, 17 miles from the headworks, the Nagla distributary leaves the left bank and passes throughout pargana Saharanpur, giving off the Lakhnauti, Chandauli and Piki minors. A short distance below this is the Randaul distributary on the right, traversing pargana Sultanpur; then in the 19th mile comes the Babail distributary on the left, discharging into the Nagla; and in the 21st mile the Pilkhani on the right, joining the Randaul and continuing through pargana Sarsawa. Next come the small Sarkari and Shahpur channels on the left, and below the outlet of the latter the first subdivision ends. In the 28th mile, near Halalpur, the Tharauli and Megchappar distributaries leave the canal on the right and left bank respectively, the former passing along the borders of Saharanpur and Sarsawa into Nakur, where it gives off the Balpur and

Islamnagar distributaries as well as several minors; while the latter runs through the centre of Saharanpur into Rampur. Next come the small Rupri minor on the right and the Manakmau, Chidbana and Kirsani on the left bank. At Reri, in the 35th mile, the Nalhera and Reri distributaries leave the left bank, the former picking up the Megchappar and running southwards through Rampur as far as Jarauda, where it joins the Kallarpur; while the latter irrigates the country between the Nalhera and the canal uniting at Rampur with the short distributary of that name, which takes off in the 40th mile. Four miles lower down is the head of the Hangoli on the right bank, and this passes into the Muzaffarnagar district, giving off a branch at Tikraul; and at the same point the Kallarpur leaves the canal on the left, to pass through the south of Rampur into the adjoining district. A third is the Sijud, which keeps parallel to the canal on the east as far as the boundary of Muzaffarnagar, and gives off the Olra, Nanauta and other minors. The remainder comprise the Salempur minor on the right, and the Papri and Bunta distributaries on the same bank, irrigating the south-east corner of Gangoh, but doing most of their work outside this district. Just below Kuakhera on the southern borders of Saharanpur the second subdivision and the upper division of the canal terminate, the total length in this district being 55 miles, while that of the smaller channels is about 280 miles.

Works on the canal.

In addition to the works on the canal already mentioned, there are bridges in the first subdivision at Nayashahr or Naushera, Raipur, Gandewar, Behat, Kalsia (where are the subdivisional workshops and headquarters), Nagla, Babail, Randaul, Malaheri, Ghuna, Sarkari and Datauli. In the second subdivision the bridges are at Halalpur, Adampur, Megchappar (a short way below the railway crossing), Manakmau, Ratnakheri, Tharauli, Reri, Balpur, Mahi, Dakrawar, Mukandpur, Salempur, Kallarpur, Anantmau, Olra, Imampur, Bhari and Kuakhera. There are inspection houses on the main canal at Khara, Faizabad, Nayashahr, Naugaon, Kalsia, Ghuna, Megchappar, Balpur, Salempur and Kuakhera; on the distributaries at Pilkhani and Jarauda; and one at Sukhi Jahanpur on the road from Kalsia to Kalluwala. In addition to these circular shelter huts with thatched roofs are

kept up on all distributaries for the use of patrols. Owing to the steep gradients and the numerous falls, the canal is eminently adapted for the usage of water-power. The demand is, however, but small, and much more might well be made of the opportunities provided. There are in all six mills—at Belka, Nagla, Randaul, Babail, Ghuna and Salempur—with two sets of stones in each case, save at Salempur, where there are four. The average rent from these mills aggregates about Rs. 20 daily while the canal is running. Another supplementary source of income is derived from the plantations with which the canal is lined throughout its length. The amount obtained from the sale of timber and fuel would be much larger were more means of access from the markets available, but for the ten years ending in 1900 it averaged Rs. 10,330 annually.

Supply.

The area estimated as commanded by the canal is 186,000 acres, but this figure is much higher than any ever reached in a single year. When the demand is strongest the supply is insufficient, since during the cold weather the total available volume of the Jumna is often as low as 2,400 cusecs, and of this only 800 cusecs are allowed to the eastern Jumna canal, and two-thirds of this are passed down to the lower division, leaving only 270 cusecs for this district. Vast improvements have been made of recent years in the matter of distribution: the number of openings in the distributaries has been reduced and a full flow allowed in each channel while open, thus reducing the opportunities for illegal practices on the part of the subordinate officials and at the same time preventing much of the waste that formerly occurred. Except in years of exceptional drought all crops sown are successfully brought to maturity, and the cultivator in the canal area enjoys almost complete immunity from a failure of the rains. The utility of the canal is amply illustrated by the returns of the area irrigated annually. In 1856 this amounted to 17,470 acres, while from 1866 to 1875 the annual average was 67,698; for the next decade 77,234; for the third period of ten years 63,189; and for the decade terminating with 1905 it was no less than 101,280 acres, the amount being 111,907 in 1899-1900, which probably approximated to the full capacity of the work. That was a year of drought, and it is

instructive to compare the result with that achieved in 1878-79, when the utmost that could be supplied was an area of 90,441 acres. Even better results were obtained in 1905-06, when 112,188 acres were irrigated from the canal in this district.

Ganges canal.

The success achieved by the Jumna canal at an early date directed attention to the possibility of utilising the Ganges in a similar manner. In 1836 a survey of the country above and below Hardwar was made, in the hope of making the Banganga answer the purpose served by the Budhi Jumna. This soon proved impossible owing to the sudden rise of the uplands to the west of the Solani. The matter was again brought forward in consequence of the famine of 1837, and in December 1839 Major Proby Cautley undertook a close examination of the country near Hardwar. His first idea was to connect the Banganga with the west Kali Nadi from Badshahpur to Ranipur, but this again was shown to be quite impracticable. He then boldly proposed to adopt a direct line from Hardwar to Roorkee, even though this involved an aqueduct over the Solani. His original estimate was for a canal 256 miles in length, with 73 miles of subsidiary branches, to be constructed at a cost of 26 lakhs. This project was sanctioned in 1841, and in the following year operations were commenced between Kankhal and Hardwar, and though stopped for a time on account of various doubts that had arisen as to the results of the canal, they were resumed shortly after, permission being given to expend two lakhs annually. Subsequently it was resolved that the canal should be primarily a navigation channel, and this decision necessitated revised projects. This policy was reversed in 1847, and consequently it was determined to push on with the Solani aqueduct and other masonry works essential to the scheme in either case. The undertaking was carried out with great rapidity, and the canal was opened on the 8th of April 1854. At that time the aqueduct was still imperfect, since the right embankment was incapable of retaining a full supply. The canal was accordingly closed and the defects remedied, the task being completed on the 6th of November in the same year. In 1855 further work on the aqueduct proved necessary; but the difficulties to be overcome were slight, and from the 1st of May

irrigation commenced in the upper sections. The system of distributaries was still very incomplete, but in spite of this and other drawbacks caused by the Mutiny, irrigation steadily developed and by 1861 a substantial profit was assured. The next year the full supply of 6,750 cusecs was admitted, and this brought to light certain defects, the chief being the excessive gradient which caused much erosion of the bed and sides of the canal. At the end of 1863 a committee of experts went into the matter, and it was resolved to improve the slope by the construction of additional falls and at the same time to carry out other works connected with navigation and the regulation of the flow at a total cost of Rs. 36,63,411. Meanwhile the whole project came in for much criticism, and a second committee was appointed in 1866; but it was found that most of the objections raised were without foundation, and Captain Crofton's original scheme of improvements was adopted with a few modifications. At the same time the project of the lower Ganges canal was mooted and sanctioned, that work being begun in 1872. For the existing canal a revised completion estimate was found necessary, and the expenditure of Rs. 94,06,664 was sanctioned in 1881. The remodelling of the canal was spread over a considerable period, and terminated in 1894. A large proportion of the sum was devoted to works in this district, notably the construction of the Deoband branch and the improvement of the headworks at Mayapur. The dam at that place was raised so as to give 20-feet openings with strong iron gates worked by powerful winches; a dam with falling shutters was erected in place of the temporary crib bund across the Hardwar spill channel; and several masonry bars were built across the river near Bhimgoda, so as to facilitate the construction of the temporary dams made for the purpose of directing the river into the canal. In the main channel the falls were strengthened with masonry and their number increased, this also necessitating the construction of additional locks. A large amount was spent on strengthening the Solani aqueduct and the embankments above it, while the distributaries were in most cases realigned and their scope extended.

Main canal.

The Ganges at Hardwar is about a mile in breadth and is divided into separate channels by several islands. One of these

channels leaves the main stream some two miles above Hardwar and passes close to the town, carrying about one-third of the total volume. The canal is drawn off from this channel at Mayapur or Ganesh-ghat, the head being strengthened by a large spur dam. It thence takes an easterly direction, past Jwalapur, and at the fifth mile crosses the Ranipur torrent by a superpassage with a waterway of 200 feet, the navigation channel here being distinct from the canal and taking a separate line to the left. A similar superpassage crosses the Pathri Rau in the 9th mile; but three miles further on, at Dhanauri, the canal has to cross the much larger Ratmau Rau, which has a width of nearly a mile. This is negotiated by means of a dam with masonry sluices on the left for an escape and an open branch for admitting the flood water on the right. From Dhanauri the canal flows in a straight line towards Roorkee, taking a south-westerly direction, and enters the high ground near Piran Kaliar, passing through a cutting with a mean depth of 31 feet. At the 18th mile comes the Solani aqueduct consisting of a waterway 150 feet wide carried over the torrent on 15 arches with a span of 50 feet each, the flooring being 24 feet above the bed of the river. The masonry portion is altogether 932 feet in length, while at either end there are earthen embankments carrying the canal at a considerable elevation above the valley, the total length of the work being 15,687 feet or nearly three miles. The earthen portion is revetted throughout with masonry disposed in the form of continuous steps resting on arches, and the floor is lined with boulders. The height of the aqueduct enables the canal to enter the uplands at Roorkee with a moderate cutting, an object of great importance since at this point, though 80 feet below the head at Hardwar, the surface of the water is 70 feet above that of the Ganges to the east. From Roorkee the canal bends to the south and maintains this direction past Manglaur to the borders of the district, its total length within the confines of Saharanpur being 30 miles.

Deoband branch.

At the 22nd mile, a short distance above Manglaur, the Deoband branch leaves the canal on the right bank. This was originally the right main distributary, but a project for remodelling and extending it through this district and Muzaffarnagar was

sanctioned in 1876, and most of the work was carried out during the famine of 1877-78, the undertaking being completed by 1881. It is now a considerable channel with an initial discharge of 495 cusecs, taking a south-westerly direction through the parganas of Manglaur and Nagal as far as the railway, where it bends southwards through Deoband, following the line of the watershed to the east of the Hindan: the total length in this district is about 26 miles. The canal has to cross the Sila *nadi* and the west Kali by aqueducts, and these proved somewhat difficult and costly operations, necessitating an expenditure of more than Rs. 1,50,000. Numerous syphons, too, had to be constructed so as to admit of the passage of the cross-country drainage.

Distributaries. Irrigation in the Jwalapur and Roorkee pargana is effected by means of small distributaries from the main canal. The first are the Kankhal and Jagjitpur, taking off in the second mile, the latter also supplying the Panjanheri minor. Then come the Ibrahimpur, Ahmadpur, Bahadurabad, Manoharpur and Kherli minors, between the 5th and 11th miles. There are no more outlets till the head of the Deoband branch is reached, and just beyond this on the right the Tansipur distributary takes off, running parallel to the canal through pargana Manglaur and giving off the Tikaula minor. On the opposite bank at the same point the left main distributary leaves the canal, and irrigates the eastern half of pargana Manglaur with the aid of Manglaur and Libarheri minors. On the Muzaffarnagar border the right and left Muhammadpur distributaries take off, but these are of no use to this district. Actually the bulk of the irrigation in Saharanpur is supplied by the Deoband branch. This gives off the small Gadarjuda distributary on its left bank at the third mile, and then comes the old right main distributary of the Ganges canal, passing south through Manglaur and Deoband into Muzaffarnagar. Next to this, at the sixth mile, is the Sidhauli distributary, a channel of considerable length, serving the country between the Sila and west Kali Nadi; then the Majhaul and Salauni minors; and then the Bastam distributary, west of the Kali, giving off the Deoband minor. After this there are the Asadpur, Sakhan, Kulsat and Rankhandi minors on the left bank,

and the Bhailal, Ambahta and Malhera on the right, supplying the western portion of the Deoband pargana.

Works. The chief masonry works on the main canal have been noted already. In addition, however, there are locks for the navigation channel at Ranipur, Bahadurabad, Salempur and Pathri, the next being at Asafnagar below Roorkee, while no others are to be seen till the canal reaches Muhammadpur in Muzaffarnagar. The bridges over the canal, in addition to those on the railway at Jwalapur and Roorkee, are at Bahadurabad, Salempur, Dhanauri, Piran Kaliar, Roorkee, Ganeshpur, Asafnagar, Manglaur, Libarheri and Mandauli. Flour mills are maintained at Bahadurabad, Roorkee and Asafnagar, the first having eight pairs of stones, the second two and the last six. On the Deoband branch there are numerous bridges at short intervals, in most cases designed to bear cart traffic and in a few instances for cattle and passengers only. Inspection houses for the use of officers are to be found at Bhimgoda above Hardwar, at Mayapur where there is one on either side of the canal, and at Ranipur, Bahadurabad, Pathri, Dhanauri, Roorkee, Asafnagar and Manglaur. On the Deoband branch are bungalows at Bastam and Ambahta, while one is at Sadharanpur on the Sidhauli distributary.

Supply. As early as 1861 the canal supplied irrigation to 12,627 acres in this district, and the subsequent increase has been constant, though fluctuations necessarily occur with the requirements of varying seasons. From 1866-67 to 1875-76 the annual average was 20,484 acres, rising to 26,290 in the ensuing decade and to 27,879 in the third decennial period. For the ten years ending with 1905-06 the average was no less than 46,126 acres, the maximum capacity of the canal being fairly tested in the drought of 1899-1900, when 61,173 acres obtained water from the main canal and the Deoband branch. This may be compared with the 43,000 acres irrigated in the famine year of 1877-78, when the necessity for the extension of the system became apparent. On such occasions the strain on the system is very great, but the results merely serve to illustrate the value of the canal. In abnormally wet years the demand falls off rapidly, as was the case in 1894-95, when no more than 17,236 acres were irrigated.

The wells used for the purposes of irrigation are mainly of the unprotected type, though these have the disadvantage of collapsing after a short term of existence, their life depending on the nature of the subsoil. In the uplands of the Nakur tahsil they last from one to three years, and in the country about the head waters of the Katha, Hindan and Kali Nadi they have to be strengthened by a circular frame work of roughly-hewn planks, usually of *dhak* wood, loosely fitted together and kept in their place by a wattling of *bajra* stalks, though even with these elaborate precautions they seldom last for more than four years. In portions of Bhagwanpur this wooden lining is carried right up to the level of the soil, and wells protected in this manner go by the name of *kathkui*. In many parts of the Roorkee tahsil wells cannot be dug, in spite of the proximity of water, since at a few feet quicksands are met with; and indeed the only tract east of the Hindan in which wells are successful is the strip running down the centre of Nagal and Deoband. Masonry wells, of course, can be made; but the expense is generally prohibitive, though there has been a great increase in their number of late years. West of the Hindan the number of wells is limited only by the supply of labour and cattle that the cultivator can command. In the eastern parganas wells are almost exclusively worked by the *charas* or leathern bucket drawn by men or bullocks; but in the west the *harat* or Persian-wheel is commonly employed, and this, though less efficient, is far more economical in the matter of labour. In the *khadir* tracts the wells are mere water-holes known as *ogals*, and these never last more than a single season. Wells.

In early days the district suffered repeatedly from famine, in common with the rest of the upper Doab. Numerous references to such calamities are to be found in the writings of the Musalman historians, although in few instances are there any direct allusions to Saharanpur. One of the first of which anything is known occurred in 1291, during the reign of Jalal-ud-din Firoz Shah, when we are told that prices rose to an abnormal height, and the scarcity in the Siwalik country was very severely felt. "The Hindus of that country came into Dehli with their families, 20 or 30 of them together, and in the extremity of Early famines.

hunger drowned themselves into the Jumna. The Sultan and his nobles did all they could to help them. In the following year there was abundant rain."* Another famine occurred not long afterwards in the reign of Muhammad *bin* Tughlaq, whose revenue policy reduced the agricultural classes to the greatest distress, which was enhanced by a prolonged period of deficient rainfall. Vast areas went out of cultivation, and countless numbers of the people died. The Sultan attempted in some measure to relieve matters, but the unfortunate inhabitants had sunk to a state of helpless apathy. This calamity seems to have changed the whole population of the country, and it is probable that much of the immigration of which traditions still survive may be ascribed to the prosperous years that followed during the reign of Firoz Shah. The next famine seems to have followed on the incursion of Timur in 1398, and was the result of his action rather than of unfavourable climatic conditions. Sickness ravaged the country and the fields were left untilled, so that there was no grain to be purchased. Other visitations of a like nature occurred in 1424 and 1471. No further reference was made to the subject till 1631, when scarcity of rain caused a famine which raged throughout the whole of India; and 30 years later, in the days of Aurangzeb, the upper Doab and the neighbourhood of Dehli suffered acutely from the extraordinary drought. Much distress was experienced in 1739 as the result of the Afghan invasion, and in subsequent years their raids and those of the Sikhs reduced the people of this district to great straits. The great *chalisa* famine of 1783 appears to have left this district almost untouched: at any rate there is no information to show that its effects extended further north than Meerut, although it seems certain that the district could not have escaped the pressure of scarcity by reason of the unprecedented height to which prices then rose.

1803-1825.

The first famine which occurred after the introduction of British rule was that of 1803-04. This raged with great severity throughout the Doab, and at the same time caused an extensive rise in prices from Rohilkhand to Benares. The *rabi* crops had been extensively injured by hailstones in the early part of 1803, while the rains of that year were scanty in the beginning and

* E. H. I., III, pp. 146, 591.

ceased prematurely about the middle of August. This also caused a great contraction of the area sown for the ensuing *rabi*, and the outturn was further reduced by the entire failure of the winter rains, which in this district almost invariably occur. A large amount of the revenue was suspended, the greater proportion being ultimately lost. In 1805 the outturn was up to the average, but in the following year the rains, though at first favourable, broke off on the 21st of August, resulting in an extremely poor *kharif* harvest. Similar disasters from like causes took place in 1810 and 1812. The scarcity of 1813 did not affect Saharanpur to any serious extent, and was not felt in the upper Doab. In 1824-25, however, there was a very serious drought occasioning famine in the Meerut, Rohilkhand and Agra divisions. Relief measures took the usual form of inquiries followed by grants of advances to the cultivators, but nothing was attempted with the object of achieving security in the future. Large revenue balances accrued, and a considerable portion of the demand had to be struck off.

About the earliest famine of which authentic records are extant was that which occurred in 1837-38. During the hot weather of 1837 the first symptoms of the approaching scarcity were shown by the prolongation of the hot westerly winds, which continued to blow throughout July and August. There were some few showers in September, but the land remained dry and untilled except in the lowlying *khadirs* of the great rivers and in the small area commanded by the eastern Jumna canal. The district in consequence became wholly disorganized. The Banias closed their shops, the peasantry took to plunder, the cattle starved and died, crime was rife throughout the district and the people showed a general tendency to migrate from their homes in the vain hope of finding a means of subsistence elsewhere. In the beginning of 1838 an attempt was made to cope with the distress by the establishment of relief works, but large numbers perished of actual starvation, while the mortality from sickness was equally heavy. The situation was relieved by a good fall of rain in February, which saved a fair proportion of the *rabi* crop, so that Saharanpur escaped more lightly than the southern districts. As it was, it proved necessary to remit the revenue

1837-38.

demand in 1837-38 and the following year to the extent of Rs. 1,03,264. In addition to this large sums were expended by Government in gratuitous relief so as to provide for the purchase of cattle, the immense losses in agricultural stock having crippled the resources of the surviving cultivators.

1860-61. In 1858 and the following year the rainfall was somewhat deficient and the *kharif* harvest on both occasions was a partial failure. Matters reached their climax in 1860, when the rains held off till 13th of July and the people were already feeling the pinch of hunger. The monsoon was extremely weak, small showers falling between 15th and 20th of July, while, with the exception of the week from the 11th to the 17th of August and a few days in September, the succeeding period was rainless. At an early date instructions were issued for the organization of relief works; but no labourers appeared till the middle of December, when a number of starving persons came from the neighbourhood of Saharanpur to work on the road from Roorkee to Fatehpur and the Mohand pass. When it became generally known that employment was to be obtained at easy rates, the numbers rapidly increased, and by the end of January 1861 there were 10,000 persons at work, in addition to 17,640 souls, including old, infirm and children, who were relieved gratuitously. The distress increased in intensity until July, and up to that time no fewer than 2,951,424 persons, counted by daily units, were employed on the road, at an expenditure of Rs. 2,50,686, while in the poorhouses and elsewhere assistance was afforded to 231,066 persons at a total cost of Rs. 15,248. With the advent of the rains work was to be obtained in the fields, so that the numbers were at once reduced and, as a further encouragement, some Rs. 20,000 were granted for the purchase of seed-grain and cattle. Although the canals were by this time in full work, so that an average *rabi* harvest was obtained in 1861 in at least two-fifths of the district, the famine was very acutely felt in the area beyond the reach of irrigation. The loss of life, both of men and cattle, was very severe, as was indeed the case throughout the upper Doab and Rohilkhand. A large proportion of the revenue could not be collected and the

realization of Rs. 1,39,842 was postponed indefinitely, much of this being subsequently remitted.

Another great drought occurred in 1868-69, and again the immediate cause was the failure of the *kharif*. As plentiful rain had fallen in July 1868, a large area was sown, but during August there were only a few showers in the central parganas of Saharanpur, Roorkee and Nakur, and when in September regular hot weather conditions were again established, the crops were destroyed where beyond the influence of artificial irrigation. This also involved a great reduction in the *rabi* area, except in the irrigated tracts, the decrease amounting in all to about 25 per cent. of the normal. The winter rains came late but in time to be of great benefit to the crops, so that eventually about an average outturn was secured on the area sown, except in the higher and sandy tracts, where the seed failed to germinate. The rains of 1869 were timely and abundant, and with their establishment all anxiety for agricultural prospects ceased. On the other hand prices remained very high for a considerable period, although the district on this occasion benefited largely by the railway which had recently been opened. There were no visible signs of distress till the beginning of 1869, when poorhouses were started and relief works commenced. By the middle of January the works in progress were confined to the roads in the vicinity of Saharanpur and to the construction of new roads between Manglaur and Ranipur, and from the headquarters to the Timli pass and Chakrata. From the beginning of January to the end of March employment was afforded on these works to 247,000 persons at a cost of Rs. 23,925, while up to the end of May 14,500 persons were supported by gratuitous relief at an expenditure of Rs. 2,795. The numbers fell off with the commencement of harvesting operations for the *rabi*, and though they again increased to a slight extent, the works were deserted with the arrival of the rains. This famine was consequently of comparatively slight importance, and the distress never approached that experienced on the former occasion. As before, material assistance was given to the cultivators in the way of advances, Rs. 60,343 being granted for the construction of wells and the purchase of seed-grain and plough-cattle. 1868-69.

1877-78. The general famine of 1877-78 affected Saharanpur only to a small extent. The rains of 1877 were a partial failure and in many parts of the district no *kharif* could be sown, or else the young crops were destroyed by drought, save in the area commanded by the canal. With a good downpour in October and a timely fall of the winter rains hopes were at one time entertained of an abundant *rabi;* but subsequently it was much damaged by strong winds and frequent rain that fell when the crops were ripening, so that wheat and barley were somewhat below the average and other staples gave a very indifferent yield. Symptoms of distress began to appear in January 1878, and a work was started on the road from Saharanpur to Chilkana, while poorhouses were opened at Saharanpur and Roorkee and kitchens were instituted at all the dispensaries. On the 21st February a second work was begun on the road from Saharanpur to Dehra, close to the city; and on the 1st of March a further undertaking was commenced in the shape of a road from Fatehpur to Muzaffarabad, the distress being greatest in pargana Haraura. The last of these was closed on the 12th of April, as also was the Saharanpur poorhouse, and the prospect looked brighter, especially as the rains of 1878 were fairly satisfactory. About the middle of July, however, the number of destitute persons began to increase, and a municipal work was opened at Saharanpur, while soon afterwards the poorhouse was again started. Good rain fell in September and the works were abandoned, but poorhouse relief was continued till March 1879, chiefly on account of the high prices that still prevailed. The extent of distress on this occasion may be gauged from the fact that up to the end of September 1878 the total number of persons relieved on the works was 66,723, at a cost of Rs. 5,760, while in the poorhouses 29,336 persons were supported at a total expenditure of Rs. 2,564. The revenue was suspended to the amount of Rs. 29,738, but no remissions were found necessary and the whole was recovered before the end of 1879.

1896-97. Saharanpur suffered to some extent from the cycle of bad seasons which began in 1894, although the famine here was insignificant as compared with the conditions of affairs that prevailed in other parts of the provinces. The monsoon of

1895 was weak and the rains in the ensuing cold weather were insufficient, so that the *kharif* and *rabi* outturns were decidedly poor. This was followed by an almost entire failure of the rains in 1896, resulting in extremely deficient *kharif* harvest on unirrigated land. Where, however, the fields were within reach of the canal and well-irrigation was plentiful, the crops were excellent, and so high were the prices realized that for many *zamindars* and cultivators the so-called famine of 1896 was a period of exceptional prosperity. The cold weather rains of 1896-97 were fair and a moderate *rabi* was obtained, so that on this occasion the agricultural population had no cause for complaint and distress was only felt by the labouring classes and those in receipt of a low fixed wage. A certain amount of gratuitous relief was distributed, but the works started in various places failed entirely to attract labourers. Liberal advances were given to agriculturists, particularly for the construction of wells, and between October and December 1896 as much as Rs. 14,187 were thus distributed.

The rains of 1897 and the following year were good, and at least average crops were harvested; but again in 1899 there was another almost total failure of the rains, resulting in the practical disappearance of the *kharif* in the unirrigated tracts. The circumstances of 1896 were repeated, for the *zamindars* and cultivators who possessed means of irrigation prospered greatly, while the labourers felt the pinch of high prices. The demand for canal irrigation in the cold weather of 1899-1900 was unprecedented, so that the Eastern Jumna canal was quite unequal to the task of giving a full supply both in the upper and lower divisions: but it was enabled at any rate to afford sufficient water to ensure a fair crop throughout the area commanded. No relief works were necessary, and nothing was attempted beyond the liberal distribution of advances together with suspensions in a few cases. The rains of 1900 were excellent and the *kharif* was one of the best ever known, while since that time the district has enjoyed uninterrupted prosperity. 1899.

The connection between famines and prices are obvious, but unfortunately the history of the latter in early years is extremely meagre. At the beginning of the nineteenth century Prices.

the prevailing rates were extremely low, according to modern standards, and corn was even cheaper in Saharanpur than in Meerut where greater facilities existed for transport.* In spite of great fluctuations, far more sudden and extensive than ever occur nowadays, when improved communications and a large export trade have levelled up the rates throughout the north of India, prices remained low for half a century, though at the same time there was a constant and perceptible tendency to rise. The famine of 1837 had a great effect on the markets, and though it was followed by a recovery, this recovery was not complete. From 1840 to 1850 the average rates were at least 25 per cent. higher than those of thirty years before, cheap as they were in comparison with those that followed. The Mutiny had, no doubt, a very disturbing effect on trade, and this calamity had hardly passed away when a series of disastrous seasons took place, and prices rose to a height that was regarded as quite abnormal. It is probably on this account that the average rates for food-grains for the five years ending in 1865 appear to have reached a much higher level than was the case in other and more favoured parts of the United Provinces. The period was one of agricultural depression arising from climatic conditions, and consequently cannot be considered as normal. Nor did the effects of famine soon pass away, for in 1869 another exceptionally bad season was experienced, which sent prices up to a height rarely, if ever, surpassed in the previous history of the district. Between 1861 and 1870 the mean rates for the principal grains were 14·4 *sers* for common rice, 20·52 for wheat, 26·6 for barley, 21·97 for *juar*, 23·26 for *bajra* and 24·94 *sers* to the rupee for gram. The next decade opened well and the markets slackened, but the second half was marred by the famine of 1877, when the extreme scarcity prevailing elsewhere was not without its effect on Saharanpur, already sensitised by the development of communications. The rates for the ten years, however, were still in several instances lower than in the preceding period: rice averaged 11·92, wheat 20·6, barley 29·5, *juar* 24·03, *bajra* 21·86 and gram 24·15 *sers*. When the effects of famine had passed away a period of cheapness again ensued, and prices receded

* Gazetteer of Meerut, p. 60.

more or less to their old level from 1880 to 1885. The next year, however, witnessed a striking change, and the same phenomenon was observed everywhere. It cannot be ascribed in any way to poor harvests, for the crops were uniformly good; but being so general it seems likely that it was due to far-reaching economic causes, such as the fall in the value of silver, the extension of railways and the sudden expansion of the export trade, all of which appear to have synchronised in their action. Everything was affected alike, and the rates rose to a height that had not been surpassed in former periods which included a year of famine. Consequently for the ten years, from 1881 to 1890, the average for rice was 12·03, for wheat 18·9, for barley 26·7, for *juar* 24·46, for *bajra* 22·66 and for gram 24·41 *sers* to the rupee. These high rates showed no sign of diminishing in after years, but rather the reverse. They remained steady at first and then rose sharply as a succession of poor harvests ensued, culminating in the famine of 1897. The effects of the latter were almost insignificant in Saharanpur, but prices were kept up by the drought of 1899, of which the influence was very strong though comparatively local. The rates from 1891 to 1900 averaged 9·78 *sers* of rice, 14·68 of wheat, 21·82 of barley, 17·84 of *juar*, 15·49 of *bajra* and 18·29 of gram. During the next five years the outturn of the harvests was the best on record, and the stringency abated. This was the case throughout the United Provinces, and Saharanpur afforded a striking example of the rule. Rice alone had become dearer, averaging 9·62 *sers*; but of the other staples 15·8 *sers* of wheat, 24·09 of barley, 21 of *juar*, 19·91 of *bajra* and 20·18 *sers* of gram could be purchased for a rupee. Since 1905 a further rise has occurred, but it remains to be seen whether it is merely temporary or of a permanent nature: at all events it is improbable that there will be a return to the low rates in force prior to 1886, which year seems to mark the opening of a new epoch. On the whole it appears that between 1861 and 1905 prices rose on an average by 46 per cent., the increase being 33 per cent. since 1871, the greater part of the enhancement occurring in the two last decades.

Statistics of wages are of little value, since no general average can be obtained where the remuneration of labour is so commonly Wages.

paid in kind and where there is so great a difference between the urban and the rural tracts. Moreover, it is impossible to establish any accurate comparison between wages in the past and those at present prevailing, not only because the value of the remuneration when paid in grain fluctuates in proportion to prices, but also because no reliance can be placed on the old returns. The traditional cash wage of an agricultural labourer was two annas a day or Rs. 3-12-0 monthly, and this remained fairly constant till 1878 or thereabouts, when it rose to Rs. 4. A further increase took place with the general rise in prices that started in 1886, and since that time the average has been between Rs. 5 and Rs. 6, the increase in almost every branch of labour being about 50 per cent. during the last twenty years. In 1906 the results of a careful inquiry showed that cash wages for unskilled labour ranged from Rs. 4-11-0 to Rs. 5-10-0 per mensem, while the commuted value of payment in kind was somewhat higher. The latter exhibits a constant tendency to become less common, and may now be practically disregarded. It should be observed that these rates are those paid by ordinary cultivators to free labourers, and that landholders and persons of influence generally pay lower wages, as a rule about one anna a day less. The wages of the village servants and craftsmen are impossible to estimate, as so much depends on custom and traditional perquisites: the ploughman's wage is believed to vary from Rs. 3-8-0 to Rs. 5-4-0 per mensem, and this is probably the nearest obtainable approximation to the truth. In the towns cash wages are universal, unskilled labour is a little dearer than in the rural tracts, while the wages earned by artizans are distinctly higher and have risen more rapidly of late years than those of any other class. Much depends on the degree of skill attained; a carpenter, for example, who obtains from Rs. 5 to Rs. 6 in the villages and gets from Rs. 8 to Rs. 10 in the towns, will earn double the latter amount if he had attained proficiency as a wood-carver or fretworker, or if he is employed as a skilled operative in the Roorkee workshops. Generally speaking, the rate of wages is much the same as in Muzaffarnagar and Meerut, and is considerably in advance of that ruling in other parts of the United Provinces.

As is the case in so many districts, the local weights and measures differ considerably from the Government standards. The English yard of 36 inches is in general use throughout the the Roorkee tahsil and in a few shops near the railway settlement at Saharanpur. Elsewhere the yard employed by tailors and cloth merchants is the *ilahi gaz* of 37½ inches, and that used by architects, builders and timber merchants is the *bahadur shahi gaz* of 35 inches, though in the Deoband tahsil its length is given as 34½ inches. In measuring land the unit everywhere is the bamboo rod or *gatha*, of which twenty go to the *jarib* or chain, the latter being 49½ English yards. This gives a *pakka bigha* of 2,450·25 square yards, found also in Muzaffarnagar and Cawnpore. The *kachcha bigha* is exactly one-third of this area and there appear to be no local variations. Similarly the standard *ser* of 80 *tolas* is employed only at the railway stations and by fruit-sellers at Saharanpur, as well as in the principal towns and villages of the Roorkee, Bhagwanpur and Jwalapur parganas. In other parts a *ser* of 86 standard *tolas* is the most common weight, though in the parganas of Deoband, Nagal and Gangoh, as also in the town of Ambahta, and in the rest of pargana Jwalapur, the *ser* is ordinarily of 88 *tolas*. A further variation occurs in Manglaur and the remaining portions of Roorkee and Bhagwanpur, where the *ser* is of 90 *tolas*. It is difficult to account for the origin of these large weights, since it is certain that the rupee was never in old days heavier than 80 *tolas*. The 88 *tola ser*, which is found also in Muzaffarnagar, is said to be the equivalent of 92 Farrukhabad rupees, but this does not afford any indication of its history. The 90 *tola ser* of the Agra district is similarly derived from a certain number of *takas* or double-pice; and it is quite possible that the heavy *sers* of Saharanpur may trace their descent to the *dam* of the Suris and Mughals, representing as nearly as possible 50 of these coins, the weight of which varied somewhat from time to time. Weights and measures.

Rates of interest vary widely with the amount and nature of the loan, the credit and position of the borrower and the quality of the security offered. The great majority of transactions are advances made to agriculturists in cash or in grain for seed, and these take the usual form, loans on personal security only, Interest.

when the principal is small and the period short, bearing interest at a normal rate of Rs. 2 per cent. per mensem. Higher rates are sometimes exacted in the villages, sometimes reaching Rs. 3-2-0 per cent.: but such instances are rare. The Bohras generally lend on the *kist* system, whereby an advance of Rs. 10 is repaid in twelve monthly instalments of one rupee. Frequently, too, the rate on a few rupees lent to cultivators is two annas per rupee for a period of six months or till the ensuing harvest has been garnered. Simple money bonds, in the case of small loans up to Rs. 100, carry from Re. 1 to Rs. 3-2-0 per cent. per mensem if unregistered, and from Re. 1 to Rs. 2 when registered, the latter rate prevailing also in *bahikhata* loans. When silver ornaments are pledged as security the interest ranges from Re. 0-12-0 to Re. 1-9-0 per mensem, and about half this amount is charged when the ornaments are of gold or jewels. Simple mortgages carry from Re. 0-8-0 to Rs. 2 per mensem, while the estimated rate for mortgage with possession is from six to twelve annas on the sum advanced. The rate is naturally lower in the case of large loans or for approved customers, or again in business transactions between Banias, the average in such cases being from six to eight annas. There are several large native banking houses in Saharanpur and elsewhere besides the People's Bank of India, Limited, which has recently opened a branch in the city, and the Allahabad Bank, Limited, which maintains a branch at Deoband for the benefit of the grain dealers of that place. The largest firm is that represented by Mani Chand, Sri Ram, Radha Kishan and Jai Narayan, Bohras of Saharanpur, who do an extensive business as brokers and grain dealers. Among other Bohras are Panna Lal and Nath Mal, the sons of Asa Ram; Shankar Lal, Dhuni Lal and Hira Lal; Banu Mal, the adopted son of Narayan Das; and Mul Raj and Ramsukh Das of Reri Malakpur in the Saharanpur pargana. Of the Agarwalas the chief are Lachhmi Chand and Murli Lal, the sons of the well-known Ganeshi Lal Bhagat who also figure among the large landowners of the district. Others include Shankar Lal, Sundar Lal and brothers, the sons of Amolak Ram; Hardyan Singh, son of Dina Nath, a big broker; Kishori Lal, son of Sant Lal; and Mutasaddi Lal, who does a great

business in sugarcane presses. Mention should also be made of Jambu Prasad, one of the leading Jains of the city and an important landowner; of Hakim Muhammad Yusuf, again a large *zamindar*; and of Saiyid Agha Haidar, a banker, a landowner and a barrister-at-law. Outside the city the chief bankers are Baru Mal and Kura Mal, Agarwalas of Kota in pargana Haraura, who are extensively concerned in the grain trade. At Deoband are two large firms, one represented by Beni Prasad and other sons of Balak Ram, and the second by Jado Rai and Badri Das, sons of Gurdyal Mal. At Titron is a large sugar mill concern owned by Lala Chandrabhan, and at Gangoh is a well-known house of money-lenders represented by Ramanand, Mansab Rai, Ajodhya Prasad and others. The Rani of Landhaura conducts a flourishing banking business, and of almost equal importance is that of Bhagwan Das, an Agarwala of the same town.

Village banks.

As yet little has been done in the matter of co-operative credit societies. In March 1902 two banks were started at Landhaura and Kailaspur under the management of the *zamindars'* agents. The members of the Kailaspur society were drawn from twelve different villages, and the small capital of Rs. 354 advanced by the landowner was insufficient for their needs, with the result that little interest was taken in the concern and though its working showed a small profit, the business was wound up in 1906. The Landhaura bank has been more successful, and the capital has increased from Rs. 315 to Rs. 800. Interest is paid at the rate of 4 per cent. on borrowed capital, and the charge on loans is 9$\frac{3}{8}$ per cent. The society has not yet been registered, owing to objections of a technical character raised by the Rani in connection with the bye-laws.

Manufactures.

Of the indigenous industries and manufactures the chief is cotton-weaving, which affords employment in its various branches to some 57,000 persons or rather more than five per cent. of the total population. The trade is carried on throughout the district, both in the towns and villages, the weavers being Hindu Koris and Musalman Julahas. The trade has, however, undergone a considerable decline of late years, owing to the competition of European and factory-made cloth. The chief product

is the ordinary coarse cloth known as *gara*, which is produced everywhere. The town of Deoband is noted for the manufacture of *chauthai*, a strong closely-woven fabric generally of undyed yarn but sometimes with a red warp stripe down one side, and red weft stripes at varying intervals, while occasionally more complicated patterns are introduced. Cotton-printing is carried on at several places by Chhipis, but the work has no special merit and cannot compare with that of Muzaffarnagar. Dyes are obtained in abundance from the forests, but these are rapidly being displaced by foreign chemical preparations. Wool-weaving is carried on in several parts by the Gadariyas, and the town of Deoband in particular is noted for its blankets.

Wood-carving.

A more celebrated industry is the woodwork of Saharanpur. This has long been established in the city, and has acquired a wide reputation. In its oldest form the industry consisted chiefly in the decoration by wood-carving of doors, doorways and the like, the principal material employed being *shisham*. Modern requirements have led to a large demand for household furniture, which is now produced in considerable quantities, and in many cases of great excellence. It is made in *shisham* and *tun*, while smaller articles are manufactured from the soft white wood known as *dudhi*, which grows in abundance on the Siwalik hills. True wood-carving has, however, been almost supplanted by the introduction of the fret-saw, and the export trade in screens, tables, frames and the like, has resulted in a great deterioration of the work, thousands of machine-made articles being exported to Europe and America. The ornamentation is confined mainly to geometrical patterns, and ordinarily the only carving consists of light floral designs. Good work is still done to order by the carvers, but their numbers have diminished, and the profits realised are inconsiderable. A modern innovation is the inlaid work, recently introduced in Saharanpur through the influence of a European resident. Floral designs of brass, copper, and German silver are worked out on plain *shisham*, and this decoration, though occasionally applied to picture frames and caskets, is best adapted to panels, the finest specimens of this work being found in the Saharanpur church.

The existence of the Siwalik forests afford employment to a large number of workers in cane and other jungle products, and an extensive basket industry is carried on at Hardwar and elsewhere, the principal material being split bamboos. Lacquered work is to be found at Saharanpur and some of the towns, but the industry is of little note and the outturn is of an inferior description. The pottery of the district is of the ordinary type, presenting no peculiar features. Formerly Saharanpur was noted for its glazed ornamental ware decorated with heavy gilding, and also for the glazed tiles there made; but in both cases the craft has died out from the lack of encouragement. Occasionally the common country pottery is treated with a vitreous glaze, similar to that applied in the adjoining districts. The glass industry is of some importance, especially in the town of Rampur. The chief products are the ordinary native bangles, which are sometimes of a superior quality, the better kinds being made from European glass. At Rampur and Deoband small flasks and vessels are blown, as well as glass mouth-pieces for tobacco pipes; these are decorated with various colours, and occasionally the patterns are very effective. Rampur is also noticeable as one of the few places in these provinces where glass is moulded, the articles produced being principally heavy inkpots in light and dark blue, and paper polishers called *ghonta*, in the shape of a flat pestle. The indigenous handicrafts in metal are unimportant, and the productions are limited to the ordinary requirements of agricultural and household use. The only other trade deserving mention is that in leather, which is produced after the country process and is used principally for the manufacture of shoes, which are often elaborately embroidered or otherwise ornamented. There is also a certain amount obtained from sheep and goat's skins, which are dyed red with lac; and some trade exists in the *sabar* leather made from the hides of wild animals, such as the *sambhar*, *nilgai* and other varieties of deer. This is used for several purposes, and notably for the leather socks worn by Musalmans in mosques.

Other industries.

The factories under European management or worked on western lines are of great importance. Belonging to the former category are the North-West Cotton Press on the Umballa road,

Factories.

the oil, rice and flour mills about two miles from the city on the Deoband road, and Mr. Farrant's sugarcane crushing mill at Saharanpur. There are also a cotton ginning factory with 40 gins, four rice-husking machines and three flour mills, started in 1902 and owned by Radha Kishan, who employs about 100 persons; a cotton ginning and pressing factory with 44 gins and one hydraulic press, on the Umballa road, owned by Shankar Lal and Sri Ram, bankers and landowners; a ginning mill with 50 gins, owned by Bhagwan Das and Sukhdeo Das, which started in 1902, and another with 42 gins belonging to Jagannath, a Mahajan of the city. In the Nakhasa Bazar are two flour mills, the property of Shah Ghulam Shabbir of Behat; in the Kori Tila *muhalla* is a similar mill owned by Hakim Muhammad Yusuf, a banker and *zamindar*; a fourth has been started by Shadi Ram, Fateh Chand and Piare Lal of Saharanpur; and a rice and flour mill with four husking machines and two mills belong to Amar Singh, a Mahajan of Ludhiana. Mention may also be made of four soda-water factories in the city, and of the weaving school lately started by the district board. There were formerly several indigo factories, but these have become extinct. The larger industrial concerns are located at Saharanpur and at Roorkee. At the former are the workshops of the North-Western Railway, at which a daily average of 336 persons are employed; they consist of locomotive and wagon shops, with a full equipment of machinery, at which all manner of repairs and a certain amount of construction are carried on.

Roorkee Workshops.

The Roorkee factories call for more detailed mention. The canal foundry and workshops were originally established in connection with the Ganges canal works in 1843, but on a very modest scale, comprising merely a timber yard, a smithy and a carpenter shop. In 1848 Lieutenant A. Allen was appointed to take charge of the establishment, which from that date steadily developed, spacious buildings being constructed, with lathe, model and engine accommodation; while in 1851 a further large installation of machinery was erected. Up to this time the institution had been maintained solely for the manufacture of articles required for the canal works; but it was then determined to meet a growing need by extending the operations, parti-

cularly in the matter of supplying mathematical and surveying instruments required for the Roorkee College. In 1852 the connection between the foundry and the canal was severed, and the workshops became an independent and self-supporting institution, undertaking the supply of iron and wood for general purposes, the manufacture and repair of mathematical instruments and iron founding. At first a considerable loss was experienced, but from 1865 the profits have been steadily increasing. By 1871 they afforded employment to 1,069 artizans and labourers, engaged in work of a very wide range. At that time they had been conducted on the footing of a private rather than of a Government department. In 1882 the Local Government considered the time to have arrived to close the factory as a public undertaking and, if possible, to dispose of it to a private firm. Negotiations were accordingly commenced for the sale of the concern to a London syndicate, but after more than two years' correspondence the matter came to nothing. In 1886, on the retirement of Mr. A. Campbell, who had been in charge for many years, the workshops were reorganized and were brought under the rules and conditions generally in force in other similar manufacturing departments of Government. The annual value of the outturn is now about three lakhs of rupees, of which no more than one-sixth consists of sales to private customers, the articles manufactured being supplied for the most part to the Public Works department in this and other provinces: the present daily number of workmen averages 650. A somewhat similar institution is the workshops of the 1st (P. W. O.) Bengal Sappers and Miners, which is situated in the Roorkee cantonment, and which, in addition to supplying articles required for the Military department, carries on a large and increasing commercial business: it employed in 1908 a daily average of 172 workmen. The remaining industrial enterprises are those connected with the Thomason College, where workshops are maintained for the purpose of imparting technical education to the students: in the technical workshops there are 176 students and 80 operatives, while 148 persons are employed in the photo-mechanical and lithographic department. A large amount of work, too, is turned out by the college press, which in 1908 employed 126

operatives. A further account of these concerns will be given in dealing with the college in chapter IV.

Trade. In former days the trade of the district was inconsiderable, owing principally to the absence of effective means of communication, since the natural highways afforded by the rivers could only be utilized to a limited extent. The development of the railway systems has brought about an immense increase in the volume of commerce, and now Saharanpur takes its place among the great exporting districts of the United Provinces. The outgoing traffic consists principally in food grains, particularly wheat, and in oilseeds, sugar and forest products, while on the other hand the chief imports are salt, metals and piece-goods. The export of wheat is conducted along various routes, grain being sent either to the Punjab and Karachi by the North-Western Railway or to Bombay by way of Ghaziabad, or else to Calcutta through Lucknow and Mughal Sarai. The growth of business may to some extent to be estimated by the fact that whereas in 1872 the outward-bound traffic from the stations on the North-Western Railway was 308,000 maunds, the amount 30 years later was 1,897,000 maunds by this route alone, while in the meantime a very large trade had come into existence on the Oudh and Rohilkhand Railway, aggregating about 350,000 maunds in the year. Further extension may be expected with the completion of the light railway from Saharanpur to Shahdara, which opens up a tract of country hitherto untouched. The railways have not only improved the old trade routes, but have created lines of trade where none previously existed. In former days the chief highway was the road from Meerut to the Punjab, through Deoband, Saharanpur and Sarsawa, and the construction of the railway has immensely benefited these towns, and at the same time it has left the other markets in the interior untouched. Hardwar, too, had once a large trade, but its disappearance is due to other causes than railway development, since the place has now ample facilities in that respect. The only route that has been noticeably affected is that from Saharanpur to Karnal, which at one time was much frequented, but is now of little importance owing to the superior advantages afforded by more expeditious, if less direct, means of transport.

Markets. A list of all the markets in the district will be found in the appendix. In most cases they are small bazars, where unimportant gatherings take place once or twice weekly for the disposal of country produce and the purchase of the ordinary necessaries of life required by a rural population. These markets cannot be regarded as trade centres so far as the export and import traffic is concerned, for they are merely collecting and distributing places for the products of the neighbourhood. Their connection with the export trade is ordinarily very slight, but depends entirely on their position or their proximity to the principal trade routes, which practically speaking mean the railways, as the latter have completely eclipsed the old road routes from Saharanpur to Roorkee, Dehra and Meerut, and from Meerut to Roorkee. The only large trade centres are Saharanpur, Roorkee and Deoband, while in a lower category come Hardwar, Nagal and Sarsawa. Probably, too, Rampur and Nanauta will soon be added to the list, by reason of the light railway. Of the purely local bazars the chief are Muzaffarabad, Thapal Ismailpur and Buddha Kheri in the Saharanpur tahsil; Manglaur, Landhaura and Bhagwanpur in Roorkee; and Sultanpur, Nakur, Gangoh, Lakhnauti and Ambahta in the Nakur tahsil, which has the fewest advantages in the matter of railway communications.

Fairs. A second list given in the appendix shows the principal fairs held in the district. It is far from exhaustive, since it omits a large number of minor assemblages held in the chief towns and villages of every pargana on the occasion of the ordinary Hindu festivals, such as the Dasahra, Holi and Ramlila. Many small fairs, too, are held in honour of Goga Pir or Zahir Diwan, as he is called in other parts of the Meerut division and in Bijnor. This is the special saint of the Agarwal Banias, and his worship prevails throughout the upper Doab.* These assemblages usually take place in the month of Bhadon, and are designated by the generic name of *chhariyan*, derived from the banners carried by the pilgrims. The chief gathering of this nature is that held at Manakmau near Saharanpur, which is attended by some 5,000 persons. The worship of Baba Kalu is of the same nature, but is confined to the lower castes, such as

* Gazetteer of Muzaffarnagar, p. 105.

Kahars, Kumhars, Gadariyas, Sainis and Chamars. Similarly the usual Musalman festivals of the Muharram, Chehlum and the like are celebrated in all places where there is any considerable Muhammadan element in the population. Local Musalman saints are honoured at Piran Kaliar between Roorkee and Dhanaura, where the tomb of Shah Ala-ud-din attracts some 40,000 pilgrims, both Musalman and Hindu, in April; and at Gangoh, where is the tomb of the celebrated divine Abdul Quddus, who lived in the sixteenth century. The *chaudas* or *ghat* fair at Deoband takes place in April, but is of purely local importance and is held in a grove near the town where stands a temple of Devi. Mention should also be made of the fair held at the shrine of Shakumbar Devi on the hills in the north-west of pargana Muzaffarabad. This takes place in October, and is of a wholly religious character: though it has much declined of late years, it is still attended by about 8,000 persons.

Hardwar fairs.

The only fairs of real importance are those held at Hardwar, though even these have greatly fallen off in popularity. Scares caused by outbreaks of cholera and plague have deterred pilgrims from resorting to the great assemblages, and there is little sign of any marked recovery. Thirty years ago it was estimated that fully 400,000 persons were present at the principal fair in April, while now the attendance is seldom more than one-tenth of that number in spite of the vastly improved means of access. With the decline in the throng of pilgrims there has been a very noticeable drop in the commercial importance of these gatherings. Formerly Hardwar, notwithstanding its essentially religious associations, annually became a noted seat of commerce, frequented by dealers and traders of every description; numbers of horse-dealers, too, used to attend from the Punjab and Afghanistan, and a regular horse fair was held, rivalling that of Saharanpur, though now the amount of traffic is of small dimensions, and the number of animals brought to the place is quite insignificant. There are numerous bathing festivals, but the chief is that which takes place in April, on the first day of the Hindu solar year, when the sun enters Aries. This is the traditional birthday of the Ganges, and the fair is known as the Dikhauti. As at Allahabad, there are periodical

occasions of unusual sanctity, recurring every twelfth year, when the planet Jupiter is simultaneously in Aquarius. Such a conjunction is known as the *kumbh*, and then the attendance is far larger than usual; though the figures of 1796 and 1808 are no longer approached, when Hardwicke and Raper estimated the number of pilgrims at over two millions. The last occasion was in 1904, but then barely 150,000 persons were present. Six years before and after each *kumbh* comes the *adh-kumbh*, when again the attendance rises to considerable proportions. Other ordinary fairs take place on the *makar sankrant* in January, when the sun enters Capricorn; the new moons of Magh, Jeth and Kuar; the Holi festival at the end of February; and the full moon of Kuar, the great bathing day throughout the course of the Ganges. Special fairs are held on the occasion of particular conjunctions, and also of lunar and solar eclipses, when bathing in the sacred stream is an act of peculiar merit. Mention should also be made of the Dasahra, when the attendance is very large. Pilgrims come to Hardwar from all parts, the place being one of the seven great *tiraths* of Hindustan; but the majority of them hail from the west, and the presence of Punjabis in large numbers gives an unwonted aspect to the place, just as Muttra is characterised by the crowds of pilgrims from Rajputana and the Deccan. The fairs necessitate close attention on the part of the authorities, and careful arrangements have to be made in the matter of police and sanitation, as several epidemics have been traced to these gatherings, with results that have been felt over several provinces. Some further account will be given in the separate article on Hardwar. The town is as popular as ever it was as a pilgrim centre, and is rapidly becoming more popular as a place of temporary or permanent residence: of late years many sites have been taken up for residential houses by Hindus of the upper classes. The advent of the railway has perhaps caused the crowd at the great spring fair to become less, but at the same time the easier means of access has tended to bring about increased attendance at the less important gatherings.

Communications.

The district is abundantly provided with means of communication. There are, indeed, no natural highways of importance,

for though the tract is flanked on either side by great rivers neither can be considered as navigable, at any rate since their depletion caused by the construction of canals. The country is traversed by several lines of railway, Saharanpur being one of the chief railways centres in the United Provinces, and in addition there is a fair proportion of metalled road. Unmetalled roads are extremely numerous, but these are often of an inferior description: cross-country communication is especially difficult in the low-lying river valleys on the east and west, and in the tract beneath the Siwalik hills in the north, where progress is constantly impeded by the innumerable hill torrents.

Railways. The first railway to be constructed in the district was the portion of the Sind, Punjab and Delhi Railway Company between Meerut and Umballa, which was amalgamated with the North-Western State Railway system in 1886. The line was opened on the 1st of January 1869, and enters this district on the southern border a few miles south of Deoband, where there is a station; thence it continues through Nagal and Tapri to Saharanpur, from which point it takes a north-westerly direction through Pilkhani and Sarsawa to the bridge over the Jumna leading into the Umballa district, the total length in this district being 41 miles. The Jumna bridge was completed at the same time as the railway, and is a fine structure of iron girders in 24 spans, with a total length of 2,675 feet: the cost, including that of the protective works, amounted to Rs. 15,34,600. When the railway was opened a project was prepared for a branch line from Deoband to Roorkee, Hardwar and Dehra, but the scheme was abandoned for the time, to be subsequently revived in another form. This was the extension of the Oudh and Rohilkhand Railway to connect with the North-Western at Saharanpur. This undertaking was sanctioned in 1881, and the work was put in hand after the completion of the line from Moradabad to Najibabad in the Bijnor district; and the section between the latter place and Saharanpur was finally opened for traffic on the 1st of January 1886. The line enters the district in the extreme south-east corner, after crossing the Ganges at the Balawali bridge. It runs in a north westerly direction through the stations of Raisi, Laksar, Landhaura, Roorkee, Chodiala, and Balia Kheri to Saharanpur, with a total

length of 41 miles in this district. On the same date a branch line was opened between Laksar and Hardwar, with intermediate stations at Pathri and Jwalapur; though the bridge over the Ganges canal was not completed till seven months later. On the 1st of March 1900 the continuation of this line from Hardwar to Dehra was opened, having been constructed by a company with a Government guarantee. Although very little of this line lies within the borders of this district, it has had a great effect on communications, since the railway now conveys the whole of the passenger and most of the goods traffic to Mussooree, thus supplanting the old mail route from Saharanpur by way of the Mohand pass. The extension of the railway system has converted Saharanpur from a small station into an important railway centre with a large staff of superior officials, including a district traffic superintendent and his assistant, an executive engineer and his assistant, and a district locomotive superintendent. The latest development in the matter of railways has been the construction of a line on the 2 ft. 6 in. gauge from Shahdara near Dehli to Saharanpur—an undertaking by a private company which was sanctioned by Government in 1902. The line follows the course of the eastern Jumna canal, running a few miles to the east, and has stations near Nanauta, Rampur and Manani. The land required for this railway was given to the company by Government, sufficient having being acquired for the eventual construction of a broad-gauge line, should the venture prove a financial success. The railway was opened for traffic in the beginning of October 1907.

Provincial roads.

The roads of the district are partly under provincial and partly under local management, the former being maintained by the Public Works department, and the latter by the district board. The provincial roads are three in number, and comprise the most important highways. The first is the trunk road from Meerut to Dehra, which passes through Manglaur and Roorkee, following the line of the Ganges canal, and then turns north-west through Bhagwanpur to Fatehpur, where it bends to the north-east, leading to Mohand at the foot of the Siwaliks. From Mohand the road ascends steeply to the pass over the hills, and is there carried through the crest by means of a tunnel of

considerable length. This road traverses the district for a total distance of 49 miles. It is joined at Fatehpur by that from Saharanpur to Dehra, which crosses the Hindan by a good bridge at Gagalheri. Prior to the construction of the railway the route was largely frequented, but the passenger traffic by tonga from Saharanpur has been entirely abandoned although a large number of carts still follow the road; the distance from Saharanpur to Fatehpur is 14 miles, and from Fatehpur to the Mohand pass 21 miles. The third provincial road is that from the district headquarters to Chakrata, running north from Saharanpur through Kalsia, Behat, Mirzapur and Badshahibagh, whence it ascends to the Timli pass over the Siwaliks. It is 33½ miles in length, and was constructed by the Military Works department, under whose charge it remained till 1901 when it was made over to the provincial authorities.

Local roads.

The local roads have a total length of 437 miles, and a complete list of them will be found in the appendix. Less than 21 miles are metalled, and the roads thus treated are confined to the vicinity of Saharanpur, with the exception of the approach roads to the railway stations of Deoband and Sarsawa. Of the unmetalled roads 290 miles are described as second-class roads, bridged and drained throughout; 73 miles as fifth-class roads, cleared, partially bridged and drained; while the remaining 52 miles consist of sixth-class roads, cleared only, these being little better than mere cart tracks. One of the principal routes is that from Muzaffarnagar to Saharanpur and Umballa, following the line of the North-Western Railway. It has long been in existence as a highway between Meerut and the Punjab, but its importance has been greatly diminished by reason of the railway. The road is metalled on either side of Saharanpur, so far as it lies within the Saharanpur pargana; on the south-east the metalling stops at Lakhnaur near the passage of the Hindan, which was originally spanned by a bridge, though this was carried away in a flood many years ago. The other main roads comprise those leading from Saharanpur to Gangoh and Karnal on the south-west, to Rampur and Shamli on the south, from Lakhnaur to Manglaur and Laksar, and from Gagalheri to Bhagwanpur and Hardwar. Through the south of the district

runs a road from Manglaur to Deoband and Gangoh, and through Gangoh passes another well-used road from Sarsawa and Nakur to Titron and Muzaffarnagar. A second-class road connects Roorkee with Hardwar, while a good alternative route runs along the left bank of the canal, though this is not suited for cart traffic. Another road deserving notice is that from Hardwar to Khara, passing along the foot of the Siwaliks: for almost its entire length it runs through reserved forest.

Bridges and ferries. The rivers are bridged on all metalled roads, but elsewhere bridges are rare except over the smaller streams, and the passage has to be effected by fording, which in many cases is rendered difficult, if not impossible, during the rains. The Katha is a great obstacle to traffic, and has to be crossed by a ferry at Songathera on the road between Gangoh and Deoband; and a second ferry was till recently maintained at Titron, though this has now been replaced by a bridge. During the rains there are ferries at Rani Mazra and Alawalpur over the Banganga in the Ganges *khadir*. These are maintained by the district board, as also are the Shishamwala and Chandi ferries over the Ganges leading to the Bijnor district. There was till lately a third at Ranjitpur, but this has been abolished as unnecessary on account of the railway bridge. The ferries over the Jumna, on the other hand, are under the management of the authorities in the Punjab districts to the west. The principal crossing is the bridge-of-boats at Rajghat on the road to Umballá, while others are Mandhaur in pargana Sarsawa, Fatehpur Jat and Shahpur Jat in Nakur, and at Kamalpur and Begi in Gangoh, the last being on the road to Karnal.

Bungalows. Formerly there were staging bungalows for the use of travellers on the roads from Saharanpur to Mussooree and Chakrata, but these have been converted into inspection-houses for the use of officials: they are located at Fatehpur and Mohand on the former, and at Kalsia and Badshahibagh on the latter road. There are still dak-bungalows at Saharanpur, Roorkee and Hardwar, at each of which a *khansaman* is entertained. The only inspection-bungalow under the district board is at Gangoh. The various forest and canal inspection-houses have been mentioned already in dealing with those subjects. There

are Government encamping-grounds on the provincial roads at Fatehpur, Mohand, Kalsia and Badshahibagh, with a store depôt attached to each; while those on the local roads are at Deoband, Nagal, Saharanpur and Sarsawa, between Meerut and Umballa, and at Sikandarpur, Daulatpur and Bahadurabad, between Gagalheri and Hardwar.

Navigation. The Ganges is not navigable in this district and has never been utilised for traffic, except for floating down timber from the forests: in fact boats have not, it is believed, ascended the river higher than Nagal in Bijnor. The Jumna is equally useless, though this, it would appear, was not always the case, navigation having been stopped by reason of the great drain on the water involved by the construction of the eastern and western canals. In former days large numbers of boats were built at Rampur Mandi, in the Dehra Dun district, and were floated down the river for sale, as many as 300 or 350, it is said, being despatched annually to Agra and Dehli. These boats had a draught of 2½ feet and a burthen of 600 maunds, and a large down traffic was carried on in timber, *bhang* and lime, while on the return journey Agra stone, iron and drugs were brought up. The season was confined to the hot weather and rains: but though the river might still be employed at that time, boats are seldom or never to be seen on the river. The Ganges canal is the only navigable highway of any importance, and even this is likely to be closed in the near future. It was first opened for traffic in 1856.

CHAPTER III.

THE PEOPLE.

Census of 1847.

The first attempt at an enumeration of the inhabitants of the district was that made in 1847, but the machinery was extremely defective and no reliance can be placed on the figures. The total number of inhabitants was 547,353 souls, of whom 336,514 were Hindus and 210,839 Musalmans; no account was taken of other religions, nor was there any differentiation of sex. The average density was only 253 to the square mile; and this alone is sufficient to throw discredit on the returns, since the district at that time was already in a highly developed state. There were 1,447 inhabited villages, of which 1,370 contained less than a thousand inhabitants, while the five places possessing a population of over five thousand were Saharanpur, Deoband, Jwalapur, Gangoh and Manglaur.

Census of 1853.

The inaccuracy of this census was fully exposed in 1853, when a far more careful enumeration was effected, although even then the figures appear to err on the side of defect. The total was 801,325, of whom only 345,236 were females, the probability being that concealment was extensively practised. Hindus numbered 555,940, and Musalmans and others 245,385. The density was 370 to the square mile, and the number of villages was 1,481; of the latter 1,328 had a population of under a thousand, while nine towns contained more than five thousand persons apiece, Gangoh having dropped out of the former list, while the additions were Roorkee, Kankhal, Ambahta, Rampur and Landhaura.

Census of 1865.

The next census took place twelve years later, in 1865, and was in many ways an improvement on its predecessor. The total on this occasion was 866,483, of whom 390,642 were females while the density was 389 persons to the square mile. The Hindu population numbered 592,038, while Musalmans and others, including 1,234 Europeans and Eurasians, was 274,445. The

number of towns and villages had risen to 1,514, of which 1,340 contained less than a thousand inhabitants, the towns with a population exceeding five thousand in each case being nine as before, though Kankhal had given place to Gangoh.

Census of 1872.

In spite of the famine and other retarding causes, a large further increase was witnessed at the succeeding enumeration in 1872. This gave a total of 884,017 souls, of whom 399,363 were females, the density averaging 399 to the square mile. There were 604,422 Hindus, 279,015 Musalmans, and 580 Christians and others. At that time the district contained 1,736 inhabited towns and villages, and of the total 1,569 had a population of under one thousand persons in each case, 128 had between one and two thousand, while the towns possessing more than five thousand inhabitants were the same as before.

Census of 1881.

The next census took place in 1881, and on this occasion an immense increase was observed owing partly to the general development of the district, and partly to its comparative immunity during the famine of 1877 and the succeeding year, which had resulted in extensive immigration from less favoured parts. The total was 979,544, the addition to the population since 1872 being 95,527, or much more than in any of the western districts of the United Provinces. The density had increased to 440·9 persons to the square mile, and the number of towns and villages was 1,605; of the latter 1,410 contained less than a thousand persons apiece, 146 between one and two thousand and nine had a population exceeding five thousand. The list of towns now included Saharanpur, Hardwar municipality, Deoband, Roorkee, Gangoh, Manglaur, Rampur, Ambahta and Landhaura.

Census of 1891.

During the ensuing ten years an increase was maintained, though not at the same rate, in spite of the general prosperity of the decade. The number of inhabitants rose in 1891 to 1,001,280 persons, of whom 460,929 were females. This gave an average density of 446·5 persons to the square mile, a figure well above the general average for the provinces. Classified by religions there were 667,494 Hindus, 324,432 Musalmans and 9,354 others. The number of inhabited towns and villages was now 1,633, those with less than a thousand inhabitants numbering

1,434, while nine towns contained over five thousand souls, the list of 1881 remaining unchanged.

Census of 1901

The last enumeration was that of 1901, and then it was fully expected that the total would show a large increase, as during the ten years that had elapsed the district had passed through a period of great prosperity, free from serious epidemics and practically untouched by the famine of 1897. The total was 1,045,230 persons, or 43,950 more than the figure previously recorded. The resultant average density was 469·1 to the square mile, and though this is considerably lower than the rate prevailing elsewhere in the Meerut division, excepting the hill tract of Dehra Dun, it represents a very considerable pressure on the soil, if it be remembered that so large an area is under forest or else lies in the low and unhealthy valleys of the great rivers. The various subdivisions exhibit very different rates of density, Deoband coming first with 572, followed by Saharanpur with 541; in Nakur it was only 475, while Roorkee, with its large extent of forest and uninhabited jungle, contained no more than 360 persons to the square mile. It is noticeable also that in the last-mentioned tahsil the population had actually decreased to a slight extent, whereas in the rest of the district the increase was remarkably uniform.

Migration.

It does not appear that the general increase in the population is in any way due to immigration. The returns show that of the total number of inhabitants 92·94 per cent. were born in this district and 7·06 per cent. were immigrants. This was actually a lower proportion than that observed in 1891, so that the gain from this source must have been very small. On the other hand it appears that the district lost rather more by emigration, for of all the people enumerated in India who gave Saharanpur as their birth-place 92·57 per cent. were found in the district of their birth, 7·43 per cent. were resided elsewhere. Relatively the movement of population in this district is almost insignificant, and the change effected by emigration is very much less than that observed in most parts of the United Provinces. The majority, both of immigrants and emigrants, are females whose change of residence may for the most part be assigned to the ordinary marriage custom of the country.

Sex.

The district differs but little from other parts of the Meerut division in the relative position of the sexes. In 1901 males numbered 560,843 and females 484,387, the latter standing to the former in the proportion of 86·4 to a hundred. This result is almost identical with that obtained in Muzaffarnagar and in Meerut: and indeed the preponderance of males is by no means a peculiar feature, being common to all the western districts. The reason of this phenomenon is still a matter of speculation. As will have been observed from the figures given above, the proportion of females had shown a constant tendency to increase; but it is difficult to say whether this effect may be ascribed in any way to the suppression of infanticide, which in former days was undoubtedly very prevalent here, or whether it is rather due to increased accuracy in enumeration. Infanticide could not possibly account for the difference, since among the Musalmans males outnumber females to practically the same extent as is the case with Hindus; while among the latter this proportion is to be observed in practically every class and rank of society. The number of females differs but little in the various subdivisions of the district, the highest figure being 87·4 to every hundred males in the Saharanpur tahsil, followed by 86·6 in Nakur, 85·9 in Roorkee and 85 in Deoband.

Towns and villages.

At the time of the enumeration the district contained 1,646 towns and villages, and of these 1,427 had less than a thousand inhabitants apiece, 165 had between one and two thousand, 43 between two and five thousand, while the towns with a larger population were eleven in number. The list comprises the municipalities of Saharanpur, Hardwar, Deoband and Roorkee; the Act XX towns of Gangoh, Manglaur, Rampur, Ambahta and Nakur; and the large agricultural villages of Landhaura and Behat. Excluding the towns, the average population of each village is 533 persons. As a rule the sites are large and compact, the houses being crowded together in a small space, so that the outer walls of those standing in the outskirts present almost a continuous front. Such an arrangement was obviously adopted in former days for the purpose of defence, and these semi-fortified villages are common to the whole Doab. More recently a great change has occurred in this direction, as the result of

uninterrupted security from incursions; outlying hamlets are steadily increasing in number with the increase in population, thus enabling the cultivators to reside in the close vicinity of their fields. Except in the case of the wealthier members of the community, the dwelling-houses in the villages are almost invariably of mud, brick structures being confined to the towns. In the north of the district, under the Siwalik hills, the people live principally in grass huts, since mud of a sufficiently tenacious character to withstand the heavy rains of that tract is not procurable.

Religions. Of the total population as enumerated at the last census 682,619 were Hindus, 351,133 Musalmans, 5,688 Jains, 2,972 Christians, 2,329 Aryas, 477 Sikhs, 11 Parsis and one was a Buddhist. Thus 65·31 per cent. were Hindus, as compared with 23·99 per cent. of Musalmans, and it is noticeable that here, as in so many districts, the latter have increased much more rapidly than their Hindu neighbours. The proportion of Musalmans to the total population was 31·61 per cent. in 1872, rising to 32·41 in 1891 and to 33·59 ten years later, while that of Hindus showed a corresponding decline. The reason seems to be that on account of a more liberal diet Musalmans are endowed with greater longevity and fertility than the Hindus, and also that the community is relatively in better circumstances, comprising a smaller proportionate number of the poorest classes of the population. The distribution of the Musalman element, and consequently its relation to the total number of inhabitants, varies considerably in different parts of the district. In the Saharanpur tahsil near 40 per cent. of the people are Muhammadans, while in Deoband the proportion is no higher than 24 per cent.; in Nakur and in Roorkee the figure closely approximates to the general average for the district. The other religions are of no great importance, but will be severally dealt with later.

Hindus. The chief centre of religion, so far as Hinduism is concerned, is the sacred town of Hardwar, one of the great *tiraths* of India. Its influence is widely felt, although perhaps its popularity with the mass of the people is no longer so great as in former days. As represented in its more enlightened forms, Hinduism is very active; but this activity generally results in a departure from

Brahmanical orthodoxy. Many educated Hindus follow, though not always openly, the tenets of the Arya Samaj: but the mass of the people adhere to the faith of their fathers, and belong to no particular sect or school. At the last census an attempt was made to distinguish the various Hindu sects, but the result was very unsatisfactory. In this district indeed the returns were somewhat more definite than usual, but it is to be doubted whether the average uneducated Hindu confines his worship to any particular presentation of the deity. As many as 30·1 per cent. were shown as Saivites, this being a higher proportion than in any other district; 11·3 per cent. were Vaishnavites, including the large number of Bishnois; and about 3 per cent. were monotheists. Even so, more than half the community profess an indefinite belief, while undoubtedly a large number returned some particular form merely because some entry was required in the census schedule.

Hindu castes.

The composition of the Hindu element is very diversified. Representatives were found of no fewer than 76 different castes, excluding subdivisions, to say nothing of 1,239 instances in which no caste was specified. It is true, of course, that many of these are quite unimportant: sixteen castes together comprise 88·36 per cent. of the total Hindu population, having over 10,000 members apiece, while five others with more than 5,000 persons in each case make up an additional 5·23 per cent. No fewer than 41 castes have less than 500 representatives, and in 21 instances the total is under one hundred. On the other hand, the distribution is in several respects remarkable, and there is quite a number of castes which deserve mention as occurring here in unusual strength.

Chamars.

The foremost place is taken by the Chamars, who occupy a very humble position in the social scale but far outnumber any other caste in all parts of the district, their predominance being most marked in the Saharanpur and Roorkee tahsils. Altogether they numbered 205,167 souls, or 30·06 per cent. of the entire Hindu community, and though they are very commonly found throughout the United Provinces, in few districts is their numerical superiority so marked as here. They comprise the great mass of the rural labouring population: they own a few acres in proprietary right; but as tenants their holdings are comparatively small, since they appear more frequently in the capacity of hired

farm hands than as cultivators on their own account. When not engaged in field work, the Chamars frequently change their name according to their occupation, describing themselves as Beldars, Mochis, Raj-mistris, Julahas and the like.

Next, but at a long distance, come the Gujars, numbering 51,191 souls or 7·5 per cent. of the Hindu population. They are fairly evenly distributed, but are most numerous in the Nakur and Deoband tahsils and are comparatively few in Saharanpur. The caste is practically confined to the western districts, and particularly to the Meerut division: the total is exceeded only in the Meerut district. In former days a large part of Saharanpur was commonly known as Gujarat, and at the present time three divisions of the area are generally recognised: the lowlands of the Ganges on the east is styled the Ghar, those of the Jumna are called Raotala and the central portion Gujarat, comprising the parganas of Gangoh, Rampur and Nakur, as well as the neighbouring tracts of Muzaffarnagar. The Gujars are the largest proprietors in the district, their holdings including the great Landhaura estate, of which mention will be made later; they also possess more land as tenants than any other caste, though in the Deoband tahsil the Chauhans slightly outnumber them. They are somewhat inferior husbandmen and have not yet lost their old reputation for turbulence and lawlessness, while they still indulge largely in thieving. Of their history little definite is known: they assert that they migrated from the west some five centuries ago, and they universally claim a Rajput extraction. This claim probably has some foundation in fact, for it has been shown that the Gujars are identical with the Gurjaras of old days, the ancestors of the modern Parihar Rajputs.* General Cunningham identified them with the Yuchi, a branch of the eastern Tartars, tracing them from Tartary to Afghanistan, where they were overthrown by the White Huns, and thence into India, where they were constantly driven eastwards under the pressure of Musalman invaders. As early as 1540 they made their power felt in the Doab, so that Sher Shah was compelled to take vigorous proceedings against them.† They did not, however, attain to any great political influence till the middle of the

Gujars.

* J. R. A. S., 1909, p. 53. | † E. H. I., IV, p. 477.

eighteenth century, when the wide estates of Landhaura and Parichhatgarh were acquired by Ram Dayal and Nain Singh. The Gujars of this district belong to a very large number of subdivisions, the names of which are often borrowed from Rajput septs. The chief is the Khubar, to which the Landhaura family belongs; while others of importance are the Batars, who held a *baoni* or tract of fifty-two villages in Gangoh and Lakhnauti, and the Chhonkars, who still retain most of an estate of twelve villages near Titron, known to this day as the Barah Chhonkaron.

Rajputs. The Gujars are closely followed by the Rajputs, of whom there were 45,940, or 6·73 per cent. of the Hindus. In addition to these a very large number of Rajputs profess the Musalman faith, and are known generically as Rangars. The distribution of the Hindu Rajput community is very uneven, no fewer than 19,404 belonging to the Saharanpur tahsil and 13,072 to Deoband, while 10,996 were enumerated in Roorkee and only 2,468 in Nakur. As a matter of fact, however, a large number are not in reality Rajputs at all, this qualification applying to all the Chauhans, of whom there were 16,310, including 6,547 in Saharanpur, 6,449 in Roorkee, 1,960 in Nakur and 1,354 in Deoband. The Chauhans, though styling themselves Chhattris and claiming descent from the old rulers of Dehli, are a distinct caste, and that of by no means a high order: they are common in the adjoining districts on either side of the Ganges, and are cultivators who do not disdain to handle the plough and follow the practice of *karao*. They are frequently designated as Khagis in this district, and are not improbably identical with that caste, which also claims for itself a Chauhan origin, but is actually akin to the Lodhs of other parts. Of the true Rajputs the most numerous are the Pundirs, a clan which is almost confined to the Meerut division and here occurs in number which are exceeded in no other district: at the last census there were 13,624 persons of this sept, of whom 9,207 resided in the Deoband tahsil, 2,974 in Saharanpur and 1,320 in Roorkee. Their territory is the tract known as the Katha, a cluster of 36 villages in the parganas of Deoband, Nagal and Rampur; but in former days they appear to have resided further north

in the country called Raotala, which extends from the uplands to the Jumna, running along the outskirts of Saharanpur. They are a strong and proud race, who in earlier days bore a reputation as marauders to which even the Gujars could not attain. Their steady resistance to the revenue and police authorities brought upon them such severe punishment that they were reduced to great straits, but they soon recovered and have managed to escape from the clutches of the usurer. They are still addicted to cattle thieving, and frequently harbour Sansias and other professional thieves. Their pride, too, is such that in the famine of 1860 they preferred to die rather than leave their homes to get relief at Saharanpur. For the same cause they were much addicted to infanticide, and have but recently been released from special supervision. After the Pundirs come the Jadons, with 2,574 representatives, of whom 2,363 were in the Saharanpur tahsil and the rest in Roorkee; then the Bargujars, also immigrants from the south, numbering 1,936, of whom 1,027 were found in Saharanpur and 863 in Roorkee; Panwars with 1,371 persons, in the same two tahsils; and Tomars with 1,065, in Saharanpur and Deoband. Other clans with more than 200 members apiece are Gahlots, Jaiswars, Bais, Bachhils and Kachhwahas. Many others occur in smaller numbers, while nearly 5,000 belonged to septs not specified in the census returns. Among the latter are the Mandahars, who are found in Muzaffarnagar and on the right bank of the Jumna, where they have long been settled.

Brahmans.

The Brahmans numbered 43,529 souls, constituting 6·38 per cent. of the Hindu population, and are to be found in approximately equal numbers throughout the district, though they are strongest in the Deoband tahsil and fewest in Nakur. They are considerable landowners and hold a large area as tenants: but their standard of husbandry is low, and they depend largely on hired labour. As is the case throughout the Meerut division, the great majority belong to the Gaur subdivision, and claim to have settled here in the fourteenth or fifteenth century. Several other subcastes are represented, but the Saraswatis alone occur in numbers exceeding one thousand, while the rest are principally Kanaujias, Sarwarias, Gujaratis and Sanadhs.

Kahars.

The fifth place is occupied by Kahars, of whom 41,461 or 6·07 per cent. of the Hindus were enumerated. They are to be found in approximately equal numbers throughout the district, and are employed as cultivators, labourers, water-carriers, domestic servants and palki-bearers. They hold a large area as tenants, but as agriculturists their capacity is not of a high order. The Kahars have many subdivisions, but most of those residing in Saharanpur style themselves Mahars and state that they originally came from the neighbourhood of Dehli: others are called Deswalis, Dhonchaks, Bots, Gurwals, Goriyas and Gharuks.

Malis and Sainis.

The Malis, also known as Baghbans or gardeners, stand in the first rank of cultivators. They numbered 29,611 persons, though the total excludes the Sainis, who are practically identical and had a total of 15,739 souls, the two together constituting 6·75 per cent. of the Hindu population. The term Saini is applied chiefly in the Roorkee tahsil, while in Deoband the two names are used indiscriminately. There were also 616 Kachhis and 158 Muraos, by which names the same caste is known in other districts. Altogether they totalled 13,430 persons in Saharanpur, 11,661 in Roorkee, 11,293 in Deoband and 9,640 in the Nakur tahsil. The identity of the Malis and Sainis is established by the fact that the same subdivisions occur in either case, the bulk of those found in this district belonging to the Gole, Bhagirathi and Bahenia clans. Their speciality is market-gardening, and while they commonly betake themselves to general farming, they devote their attention chiefly to the more valuable crops.

Bhangis.

Little need be said of the Bhangis, or Khakrobs as they are frequently called in this district. Their profession is that of sweepers and scavengers, and with rare exceptions they never take part in agriculture. The total number was 29,455, of whom one-third belonged to the Deoband tahsil, while little over 5,000 were found in Roorkee. The caste is most common in the Meerut division, and the Meerut district alone shows a higher figure than Saharanpur. Although Hindus merely by courtesy, they have a highly-developed caste organisation and a large number of sub-divisions, the chief being the Machals and Lalbegis.

Banias.

The Banias are one of the most important castes in the district on account of their wealth and the large amount of land

that they have acquired. They numbered in all 28,924 persons, and, though strongest in the Saharanpur and Roorkee tahsil, their distribution is fairly even throughout the tract. The great majority, 21,134 souls in all, belong to the well-known Agarwal subdivision, the name of which is a matter of speculation, though those in this district declare that they came from Agaroha on the borders of Hariana at the close of the fourteenth century. Others are Rustogis, Mahesris, Barasenis and Kandus, the last being confined to the Saharanpur tahsil, and the Barasenis to Saharanpur and Roorkee. A large number of Banias belong to the Bishnoi sect, and in addition to those mentioned above most of the Jains are drawn from this caste, and in particular from the Agarwals.

Barhais. The only other caste occurring in numbers exceeding 20,000 is that of the Barhais, carpenters and workers in wood by occupation, of whom there were 21,903, a figure which is only exceeded in the districts of Gorakhpur, Basti and Gonda. They are evenly distributed throughout the district, though the proportion is largest in the Roorkee tahsil. Little, too, need be said of the Koris or Hindu weavers, who numbered 17,024, and are found in greatest strength in tahsil Deoband. Many of them carry on their ancestral occupation, but the trade has declined under the stress of European competition, and numbers of the Koris betake themselves to general labour and agriculture. In many cases they style themselves Julahas, an appellation usually confined to the Musalman weavers, and probably both have a common origin. Though of low social status, they deny that they are indigenous, asserting that they came several centuries ago from the lower Doab and Oudh. So also do the Kumhars or potters, who had 16,864 representatives, nearly half of them belonging to the Roorkee tahsil. They have many subdivisions, but nearly all those in this district are either Mahars or Golas.

Koris.

Kumhars.

Jats. The Sainis have been mentioned already, and next come the Jats with 15,091 persons, no fewer than 7,581 being found in Roorkee. They are drawn principally from the great Deswali subdivision, though a fair number are Pachhades and appear to be akin to their caste-fellows in Bijnor on the other side of the Ganges. Originally coming from the Punjab they

at first settled lower down in the Doab, and the Saharanpur colonies date from a comparatively recent period. The Jats are cultivators of a very high order, with a fine broad style, and display untiring patience and industry: their largest holdings are in pargana Manglaur. The Tagas, though equal to the Jats in industry, are inferior to them in agricultural skill. They reside for the most part in the Deoband tahsil, but are found everywhere and occupy a large share of the land. Their total number was 15,051, which was exceeded in the Meerut district alone. They claim for themselves a Brahman origin, asserting that the only difference between themselves and true Brahmans is that they cultivate with their own hands; but though nothing is definitely known of this race, it seems probable that they are later arrivals from the west than the Brahmans of the Gangetic plain, and possibly they are of Scythian extraction. The Faqirs, 13,925 souls in all, comprise a somewhat mixed multitude: as many as 9,377 were described as Jogis, and these are scattered throughout the district; the rest belong mainly to the Roorkee tahsil, the majority of them residing at or near Hardwar. They included 1,733 Goshains, 1,513 Bairagis, 533 Sadhus and several others such as Sannyasis, Udasis and unspecified ascetics. The Gadariyas are less numerous than in other parts of the Doab, having a total of 12,205 persons found in all tahsils of the district. For the most part they follow their ancestral calling, keeping flocks of sheep and goats: in many cases they weave the wool of the former into blankets, Deoband being a well-known seat of the industry.

Tagas.

Faqirs.

Gadariyas.

Other castes.

Next in numerical order come Nais, 8,794; Lohars, 7,609; Ahirs, 6,811; Sonars, 6,432; and Banjaras, 6,040. The Nais are also called Hajjams, as are their Muhammadan counterparts. The Ahirs belong chiefly to the Saharanpur tahsil, and came to this district at a very early date from Muttra and Rewari in Gurgaon: they own a certain amount of land, principally in pargana Haraura. Banjaras more commonly have adopted the Musalman faith, and the Hindu members of this caste are more numerous only in the Kheri district: they are carriers by profession and reside principally in the forest tracts of the north, where they own large numbers of cattle and ponies. Next

come Dhobis, Lodhs, Chhipis, Kambohs, Orhs, Khatiks, Kayasths, Bharbhunjas and Darzis, in numbers ranging from two to five thousand. The Chhipis or cotton-printers occur in greater strength than in other districts, except Meerut and Farrukhabad. Kambohs of the Hindu persuasion are more numerous than in any other part of the United Provinces, and came here from the Punjab: they appear to be akin to the Khattris, but generally are agriculturists, while in several instances they have acquired landed property; almost all of them belong to the Saharanpur tahsil. Orhs are sometimes considered a subcaste of Koris, being weavers by profession, though they frequently betake themselves to cultivation and petty trading: they are practically confined to the Meerut division and are most numerous in Bulandshahr. The Kayasths of this district are for the most part of the Bhatnagar and Saksena subdivisions, and are of little importance, though they own a small amount of land. Few of the remaining castes call for mention. The Rors, 1,020 persons, are only found elsewhere in Muzaffarnagar, Bulandshahr and Muttra, and here reside solely in the Roorkee tahsil: they are cultivators of a good stamp, and also make mats and twine from jungle grasses. Bohras, too, are a caste peculiar to this division, and in Saharanpur numbered 387 souls: they are said to have come from Marwar, and are traders and money-lenders, the term Bohra indeed being generally synonymous with that of Mahajan. The criminal and vagrant tribes are well represented, as the district contains large numbers of Haburas, Sansias, Nats, Kanjars and Dakauts, while many of these people adopt other names when questioned so as to avoid suspicion on the part of the police.

With few exceptions the Musalmans of this district are Sunnis, no fewer than 97·84 per cent. belonging to this sect at the time of the census. Shias made up 1·19, and Lalbegis, who are sweepers and Musalmans only in name, ·95 per cent. There were but three Wahabis, this denomination being practically extinct, though at one time dissent was said to be rampant, and especially at Deoband. The composition of the Musalman community is as varied as that of the Hindu, owing to the fact that while some are descendants of the followers of Muhammadan Musalmans.

invaders, the majority are sprung from converted Hindus of almost every caste. There has, too, been an obvious tendency for followers of hereditary trades to become a distinct caste, resulting in the growth of a complex and artificial system of very recent origin. At the last census representatives of no fewer than 79 castes were enumerated, to say nothing of 882 persons who were unclassified. As with the Hindus, however, few castes are of importance: in 24 cases the number of persons was less than one hundred, while 23 others had under one thousand members apiece and eleven castes alone make up 80 per cent. of the total.

Telis. The foremost place is taken by the Telis, who numbered 48,642 or 13·85 per cent. of the Musalman inhabitants. This figure is exceeded in no other district, and indeed is vastly greater than in any other part of the United Provinces. By profession they are oil-pressers, but a large proportion of them follow other occupations, especially agriculture. They outnumber every other caste in the Saharanpur and Deoband tahsils, nearly half of them residing in the former.

Julahas. Next to them come the Julahas with 44,784 souls or 12·75 per cent. of the Musalman community. They prevail in Saharanpur and Roorkee, though considerable numbers are found elsewhere. With their scanty beards and almost bare cheeks, the Julahas are readily distinguishable, and are to be seen in almost every village. Most of them still follow their hereditary trade of weaving, but hard times have driven large numbers to agriculture, in which they have achieved fair success. Closely akin to them, and of common origin, are the Behnas or cotton-carders, who are not, however, very numerous in this district.

Garas. The Garas are far stronger in Saharanpur than in any other part of these provinces, where they are confined to the Meerut division and to parts of Agra and Rohilkhand. They numbered 44,536 out of a provincial total of 53,952, and aggregate 12·68 per cent. of the Musalmans. They are well distributed, and are the largest caste in the Nakur tahsil. Their origin is unknown, some styling themselves Mughals and others Saiyids, though in most cases they assert themselves to be descended from Rajputs converted at an early period of Muhammadan rule, and say that the name is derived from the new custom of burying

their dead adopted by the converts. They have many subdivisions, often taken from the names of Rajput clans. The Garas are cultivators of a very high order, but their industry is combined with great litigiousness and a remarkable knowledge of legal technicalities, which renders them very unpopular with landlords: a common saying runs "*gaon men gara; khet men jhara*," implying that they are as troublesome in a village as thorns in a field.

Sheikhs. The Sheikhs numbered 27,963 or 7·96 per cent. of the Musalman population. Two-fifths belong to the Saharanpur tahsil and the rest are very evenly divided among the other portions of the district. Many are sprung from old families of settlers, though few have attained distinction and their landed possessions are comparatively small. As many as 9,828 belong to the Siddiqis and 6,452 to the Qurreshi subdivisions, which together claim more members than any others in all districts. There were 3,094 Ansaris, residing in all parts of the district, but principally in the Nakur and Deoband tahsils; 1,392 Faruqis, chiefly in Nakur; and 907 Usmanis, practically all of whom are in Deoband. Several others are represented, but in no great strength, and in a large number of cases no subdivision was specified, these being generally persons descended from Hindu converts who have adopted the style and title of Sheikh.

Rajputs. Rangars or Musalman Rajputs are very numerous in Saharanpur, aggregating 22,858 persons or 6·51 per cent. of the Musalman inhabitants. Their conversion took place at an early date, but, as with other castes, they retain to a large extent the peculiar characteristics and customs of their original stock. They are most commonly found in the headquarters tahsil, but there and in Nakur the majority of them are not true Rajputs but converted Chauhans, the latter accounting for 8,278 persons in all. Of the rest as many as 8,047 are Pundirs of the Katha tract, and reside mainly in the two northern tahsils. Other clans include Jadons, Bhattis, Tomars and Rawats, almost all of whom live in tahsil Saharanpur, as well as Panwars, Bargujars and several more of less importance.

Gujars. Musalman Gujars, too, occur in exceptional strength, the total of 20,232 persons being exceeded in no other district. The bulk

of them hail from the Nakur and Saharanpur tahsils, and very few are to be found in Roorkee, where they have retained their ancient faith. They call for no special description, as they differ but little from their Hindu brethren, having adopted the form rather than the spirit of Islam.

Pathans. Next come Pathans with a total of 16,912 souls, principally in Saharanpur, though they are well distributed throughout the area. They are considerable landowners; but few families possess large estates, and most of their old properties disappeared soon after the introduction of British rule. Many clans are represented, the chief being the Yusufzai with 5,782 members, and after them the Kakars, who are strongest in Nakur and Deoband. Among others are Lodis, in Saharanpur and Roorkee; Rohillas, in Saharanpur for the most part; Ghoris, in Roorkee; Muhammadzais, Tarins, Warakzais, Bangash, Khalils and Afridis.

Faqirs. Of the Faqirs, who numbered 13,882, nothing need be said: they are to be met with everywhere, and most of them are described as Faqirs merely, though a fair proportion consists of Sains and Jogis.

Qassabs. Nor do the Qassabs or butchers call for comment: they have a low social status and are distinguished rather by their trade than by any racial characteristics. They are distributed over the four tahsils, and are naturally most numerous in the towns.

Jhojhas. The Jhojhas, on the other land, deserve mention as being far more numerous in Saharanpur than in any other district, having a total of 12,464 persons, while elsewhere they occur in strength only in Muzaffarnagar and Bijnor. They possess a small amount of land, but as cultivators they occupy a pre-eminent position, being as a class the best husbandmen in the district. Though found in all tahsils, the vast majority reside in the Roorkee subdivision. They are clearly of Hindu origin and assert for themselves a Rajput extraction, though this is vigorously denied by the Rangars and others, who consider them as socially inferior. Endowed with remarkable industry and skill, they cultivate their land with great minuteness, carrying the subdivison of their fields to an extreme which renders the compilation of the village papers very difficult.

Hajjams. The Nais or Hajjams are the only other caste with more than ten thousand members, having a total of 12,259 persons, evenly distributed over the district.

Of the remaining castes Saiyids alone have over five thousand representatives, numbering 7,525 souls, of whom the majority are to be found in the Nakur and Saharanpur tahsils. They own a fair amount of land, but their old families are in most cases decayed, with the exception perhaps of the Pirzadas of Ambahta. The Barha Saiyids of Muzaffarnagar at one time played a prominent part among the landowners of this district, but their estates were taken from them on the fall of the Jansath house. More than half the Saiyids belong to the Husaini subdivision, which is the strongest in these provinces. There is a large colony of Bukharis in the Nakur tahsil and a fair number of Jafris in Roorkee, while the rest are variously described, the chief clans being the Tirmuzi and Hashimi. Saiyids.

The remaining Musalman castes are in most instances identical with the Hindu divisions, either in name or in occupation. Dhobis, Bhishtis, Lohars and Kumhars occur in numbers, exceeding four thousand, and then follow Behnas, Bhangis, Banjaras, Darzis, Tagas, Barhais, Halwais, Mughals and Ghosis, with over two thousand persons in each case. The number of Muhammadan Kumhars is exceptional; but the fact seems merely due to local circumstances, as at certain periods conversion in this district was very extensive. The Mughals are principally residents of the Nakur and Saharanpur tahsils. Half of them are described as Chaghtais and the majority of the rest as Turkmans, the latter being Shias, with their headquarters at Lakhnauti, where they have lived, it is said, since their settlement there in the days of Babar. The Ghosis are herdsmen, closely akin to the Hindu Ahirs, and live chiefly in the northern tahsils. Of the minor castes Sonars, Kambohs, Saiqalgars or armourers, and Khatiks are more numerous here than in any other district, but in no case are they in any degree peculiar to Saharanpur. Mention may be made also of the Bangalis, who numbered 84 out of a provincial total of 194. The others are found in Oudh, and possibly in some cases the name has been confused with Bengali. These are a vagrant caste, claiming to be descended from Lodi Pathans from Bengal, but obviously allied to the Nats and others of a similar description. Other castes.

Aryas. The Arya Samaj has made considerable headway in this district, as has been the case throughout the west of the United Provinces. The total number of its adherents in 1891 was but 496, and this rose to 2,329 ten years later, while it is probable that many Hindus should properly be added to the list although not openly avowing the tenets of the Samaj. The Roorkee and Deoband tahsils show the highest figures, though there is a fair number in Saharanpur; in the Nakur tahsil the proportion is quite insignificant. The followers of this creed are drawn from a great variety of castes, the chief being Rajputs, Banias, Tagas, Jats, Brahmans, Kayasths and Khattris. The Samaj has about a dozen recognised branches in the district, and supports several schools, including two schools for girls at Saharanpur and Roorkee, which receive grants-in-aid from the municipalities concerned.

Jains. The Jains constitute an important and influential section of the community, including among their numbers many families of wealth and landed property. They are numerous throughout the Meerut division, and are generically known as Saraugis. Practically all of them are of the Bania caste, and with few exceptions belong to the Agarwal subdivision. They are found throughout the district, but are strongest in the Saharanpur and Nakur tahsils. The Jains form a large proportion of the trading and banking population, and have control to a large extent of the export traffic in grain.

Christianity. Of the Christian population 1,205 were Europeans, 150 Eurasians and 1,617 natives. The last figure shows a rapid increase during the past decade, the total being 488 in 1891, and 336 ten years earlier. Several denominations are represented in the native community, 201 belonging to the Church of England, 1,116 being Methodists, 247 Presbyterians and 53 Roman Catholics. The first missionary enterprise undertaken in the district was the establishment at Saharanpur in 1835 of a branch of the Ludhiana Mission, organized by the Presbyterian Church of the United States of America. In 1837 an English school was opened, and from a small beginning it has grown into a flourishing institution with several branches attended by pupils of every creed. An orphanage was started

in 1838 for the care of children whose parents had perished in the famine. This, too, has developed greatly, and has attached to it an industrial school and workshop under a European mechanic: excellent work is done here, especially in the manufacture of furniture, which finds a ready sale; other trades taught are shoe-making, tailoring and various handicrafts in wood and metal. A girls' school was established in 1863, and to this five more have been added. The mission has good premises and an excellent church, in which English services also are conducted. Bazar preaching is regularly carried on and the ladies attached to the mission visit the *zananas* in the city. A very important adjunct is the dispensary, which is largely attended and is managed by a fully-qualified practitioner. The mission, too, has taken charge of the leper asylum which belongs to the municipal board. At Saharanpur there is an Anglican church served by a chaplain, and built in 1854 at a cost of about Rs. 17,000, most of which was obtained by private subscription: it is dedicated to St. Thomas and was consecrated on the 31st of December 1887. The church was afterwards enlarged, while in 1899 many internal improvements were added. Another mission centre is Roorkee, where the Society for the Propagation of the Gospel has been at work since 1855, when a branch of the Dehli mission was opened there. In 1861 it became a regular settlement and a European missionary was appointed to the post. An orphanage was started in 1877, and industrial training is given to a large number of boys, though evangelical work is the principal object. A handsome church has been built at a cost of Rs. 16,000, and in 1900 another was erected at Jwalapur. The military station of Roorkee contains the church of St. John the Baptist, opened in 1852 and consecrated four years later: it was enlarged in 1897, the total cost being Rs. 23,578, of which Rs. 8,700 were contributed by Government: it is served by a chaplain on the Bengal establishment. A second mission was started in Roorkee by the American Episcopal Methodist connexion and a large number of converts have been made by this agency during recent years.

Occupations

At the last census the population was divided according to occupations into eight classes. The largest of these is naturally the agricultural, which comprises 44·3 per cent. of the population,

excluding pasture and the care of animals, which make up 2·7 per cent. The figure is the lowest shown by any district of the United Provinces, and is accounted for by the fact that the industrial population, 20·8 per cent., is proportionately larger than anywhere else. The total excludes, it is true, those who betake themselves to agriculture as a subsidiary means of subsistence, but though this makes an appreciable addition, the actual increase is far from large. The industrial community is a very comprehensive term embracing all manner of trades and handicrafts. The chief division is that including the production of textile fabrics and dress, which gives employment to 33·2 per cent. of the persons coming under this head. Next comes the manufacture and supply of food and drink, making up 31·2 per cent., and then earthen and stoneware, wood, cane and jungle products, metals and leather, with about 7 per cent. in each case. The third great class is general or unskilled labour, other than agricultural, which comprises 13·8 per cent. of the entire population; and this is followed by personal and domestic service with 9·5 per cent. The professional class, again a wide term, constitutes 2·8 per cent., which is an unusually high proportion; and 2·5 per cent. come under the head of commerce, transport and storage. The latter figure is swelled by the existence of numerous railways and canals, the actual commercial population being 1·6 per cent., a figure exceeded only in Benares and Aligarh. The two remaining sections are Government and other public service, 1·5 per cent., and means of subsistence independent of any occupation, 2·1 per cent., the latter ranging from persons of private means to prisoners maintained at the State expense.

Language. The common tongue of the people is Urdu or Hindustani, which is spoken in a remarkably pure form even by the villagers, owing no doubt to their long-established contact with Musalmans. This subdivision of western Hindi prevails in the adjoining districts of Muzaffarnagar and Bijnor, and the large admixture of Persian to be heard in the speech of the cultivators is very striking to the ear of one accustomed to the dialects of Oudh and the East. Some kind of western Hindi is spoken by 99·06 per cent. of the people of this district, the other languages being alien tongues, notably Panjabi and English.

The district can boast of no literature of its own, and the only author connected with it is Sheikh Muhammad Baka, the supposed writer of the *Mirat-i-Alam* and other works, who was born at Saharanpur in 1604 and was appointed governor towards the end of his life. He erected several buildings in the town and gave his name to the Bakapura *muhalla:* he died there in 1680. Several scholars of repute have been educated at Deoband, but this forms their sole connection with the district. Two recently started newspapers of no importance are published at Saharanpur and the only other publications in the district are the *Jain Gazette,* a Hindi weekly, printed in Lucknow and published at Deoband, dealing solely with religious matters and the interests of the Jain community; and the *Maha Vidyalaya Samachar,* an Urdu weekly of a religious character, printed and published intermittently at Jwalapur by Swami Darshananand, an Arya preacher. Literature.

The forms of land tenure found in this district differ in no way from those which prevail throughout the Meerut division and the United Provinces generally, and are too well known to require any description. In 1906-07 the total number of *mauzas* or villages was 1,990, and these were divided into 4,853 *mahals* or revenue-paying units. The proportion of the latter to the former is generally much the same in the various parts of the district save in the Nakur tahsil and pargana Faizabad, where there are only 1,142 *mahals* to 688 *mauzas,* the ratio for the rest of the district being about three to one. Of the various forms single *zamindari* is found in 603 *mahals,* and is most common in the Roorkee tahsil. Joint *zamindari* prevails in 1,092, of which nearly half belong to the same subdivision. Perfect *pattidari* is comparatively rare, as is the case in all the western districts, the number under this head being but 237, of which the bulk lie in the parganas of Faizabad, Haraura, Jwalapur and Deoband. The imperfect variety of the same tenure occurs in 1,241 *mahals,* more than half of which belong to the Saharanpur tahsil. The most prevalent form is *bhaiyachara,* which is the usual tenure among the Gujars, Jats and Rangars. It is found in 1,676 instances, being especially prevalent in the Deoband tahsil and in the parganas of Manglaur, Bhagwanpur and Nakur. A noticeable feature throughout the Proprietary tenures.

district is the great increase in the number of *mahals* that has taken place since the last settlement. At that time the total was but 2,523; and though a large number of partitions occurred immediately after the settlement, the process has continued unabated to the present day, as the resultant of the greater pressure of the population on the soil and also, to some extent, of the inability on the part of the old village proprietors to maintain their ground.

Proprietary castes.

The bulk of the land has always been held by petty proprietors and the number of large estates is small, though of late years it has shown a marked tendency to increase owing to the constant acquisitions of the money-lending classes. These now hold about one-fourth of the entire area, and their largest possessions are in the submontane tract, where they have bought up most of the jungle grants. Next come the Gujars, including the owners of the great Landhaura estate, and then the Rajputs, both Hindu and Musalman, whose chief settlement is in the tract called the Katha. There are also several powerful though now decayed communities in other parts of the district, and especially along the foot of the hills, and these differ from their brethren of the Katha in observing more strictly the rules of their caste and refraining as far as possible from handling the plough. The other castes are relatively unimportant. The latest available figures are those of the last settlement, which show that then Mahajans owned 22·3 per cent. of the land, Gujars 20·7, Rajputs 16·4, Sheikhs 4·86, Tagas 4·3, Pathans 3·73, Jats 3·1, Brahmans 3·1, Europeans, represented by the Powell family, 3·03, Garas 2·8 and Saiyids 2·2 per cent., while Chauhans, Khattris, Kalwars, Goshains and Sainis held more than 10,000 acres apiece, followed by Kolis, Rors, Kayasths, Pirzadas, Ahirs, Jhojhas and Faqirs, the area in each case exceeding 5,000 acres. Further details showing the territorial distribution will be found in the articles on the several parganas. If these figures be compared with those of 1866 it will be found that in the course of twenty years Mahajans gained 59,053 and Sheikhs 2,029 acres, no other caste showing an appreciable addition to its possessions save Kambohs, Jogis, Telis and a few others whose total holdings are comparatively insignificant. The losses fell most heavily on the

Rajputs and Gujars, whose estates were reduced by 24,938 and 23,995 acres respectively, while proportionately large reductions occurred in the case of Rors, Tagas, Jats, Garas and Sainis.

Though now comprising but a fraction of its former area, the Landhaura estate is still the largest in the district. Of its origin no certain information has been preserved, but it seems probable that for a long period there existed a Gujar principality in the western parganas, headed by chieftains of the Khubar *got.* At all events it appears that the first of these to obtain recognition from the ruling authority was Chaudhri Manohar Singh, who in 1759 obtained a grant of 505 villages and 31 hamlets at a fixed revenue from the Rohilla governor, Najib-ud-daula. This grant was obviously in confirmation of existing conditions rather than any bestowal of a new property. Najib-ud-daula was at that time endeavouring to consolidate his acquisitions in the Doab and was glad to purchase the assistance of such a powerful ally as the head of the leading subdivision of the Gujar clan. Manohar Singh was succeeded by Lal Kunwar, after whom came Budh Singh, Mohar Singh, and then Ramdayal, who was found in possession of 794 villages and 36 hamlets when the district came into the possession of the British in 1803. The remarkable growth of the estate during the preceding fifty years illustrates the power of the Gujars, who in all places seemed to have derived more benefit than any other caste from the disturbed state of the country under the domination of the Rohillas and Marathas. The Raja, as he was invariably styled, then paid a fixed annual revenue of Rs. 1,11,597, which was confirmed to him for life. This tenure was called *muqarrari,* and a statement of the property prepared in 1810 showed that the Raja was actually proprietor of 496 villages and 31 hamlets; 35 villages and five hamlets were held by other members of the family, while in the remaining 260 villages there was no recorded proprietor, these estates being designated as *khanakhali.* Ramdayal died on the 28th of March 1813, and the revenue of that year was collected direct from the cultivators. A regular settlement was then undertaken by Mr. Chamberlain, who found that the estate comprised 827 villages and 36 hamlets, the Raja's heirs claiming to be proprietors in 596 villages and

Landhaura.

all the hamlets on the strength of two *farmans* alleged to have been granted by Aurangzeb and Muhammad Shah. Mr. Chamberlain found that these documents were forgeries, but that the Raja and his predecessors were rightfully in possession of the villages granted by Najib-ud-daula. Consequently engagements were concluded with the Raja's heirs for these villages on the ground of occupancy, since Ramdayal had always exerted himself in support of the British Government; but where the Raja's heirs had acknowledged the proprietary right to be vested in others the settlement was made after inquiry with the respective *zamindars*. In many cases also, though the villages were included in Najib-ud-daula's grant, there appeared claimants who were acknowledged to be the possessors of the proprietary right; but still their position was ignored for the time being, on the plea that the Raja had asserted his claim to the title in all these villages by the list furnished in 1810, and that he had carried on the management of them for a very long period. It was, moreover, considered expedient that the claims in the entire estate should be investigated and decided at one and the same time.

Thitki *taluqa*.

The estate did not then form a single property, but included five small *taluqas* which the Raja had made over to certain of his relatives, and this distribution was maintained. The eldest son of Ramdayal was Siwai Singh, who had predeceased his father, leaving a widow, Rani Sada Kunwar, and a son, Badan Singh, by another wife. The second son of the late Raja was Khushhal Singh, whose mother was Rani Dhan Kunwar. Disputes arose between these members of the family regarding the disposition of the remaining villages, and these were finally settled by the intervention as arbitrator of Nain Singh, the Gujar chieftain of Parichhatgarh in Meerut, who assigned the Thitki *taluqa* to Khushhal Singh, while the remainder was divided into two *taluqas* and given to Rani Sada Kunwar and Badan Singh respectively. The Thitki estate, called after a village in pargana Deoband, consisted of 239 villages and some hamlets, and this was settled with Rani Dhan Kunwar at a revenue of Rs. 1,90,475, with a progressive increase for the remaining year of the settlement. This was considered excessive, and in 1817

the progressive increase was relinquished and the initial assessment reduced by one-eleventh, making the total demand Rs. 1,73,405. The next settlement was made for seven years from 1818 to 1824 inclusive, and was accepted by the Rani on behalf of her son at the revenue of 1817-18, the last year of the previous settlement. Subsequently she refused to abide by the agreement, and the collector was directed to form a village settlement; but scarcely had this been done when the Rani again applied to be admitted. The estate was inspected by Mr. Ross, then senior member of the Board of Revenue, who found that the Rani had been using her influence to bring about a decrease of cultivation and consequently a reduced demand, and that while she had by her own act resigned the right to engage, it was in every way desirable that the settlement should be made with the village *zamindars*, who continued to press their claims to the proprietary right; but that as the title of Khushhal Singh had not yet been disproved, he should be allowed to retain the 15½ revenue-free villages belonging to the estate and a *malikana* of five per cent. on the collections in the remainder. These proposals were sanctioned on the understanding that the grant of the *malikana* conferred no prescriptive right, and the allowance ceased at his death in 1829. In the meantime it was decided that the proprietary right belonged to the village *zamindars*, and after the death of her son Rani Dhan Kunwar retained only the revenue-free villages. Khushhal Singh had married Lad Kunwar, the daughter of Natha Singh of Parichhatgarh, and thus had acquired all the latter property. Rani Lad Kunwar succeeded in the management on the death of Rani Dhan Kunwar in 1836, and petitioned for the restoration of the *malikana* allowance, though without success. She died in 1849, leaving Parichhatgarh to Harbans Singh, while the revenue-free villages in this district were resumed and settlement made with the village *zamindars*.

Jabarheri *taluqa*.

The share obtained by Rani Sada Kunwar was known as the Jabarheri *taluqa*, and consisted of 49 villages. She refused to engage for eleven of these, but accepted the remainder at an assessment which ultimately amounted to Rs. 24,162, a small reduction having been made on the analogy of the procedure

adopted in the case of Thitki. In 1822 she was permitted to retain the estate on the recommendation of Mr. Ross, as the management had been satisfactory and the village communities were contented; but at the same time it was ordered that a detailed settlement should be made under Regulation VII of 1822. This was completed by Mr. Turner and took effect from 1833, but as the Rani was now incapable of managing the estate, an agreement was made whereby Rani Dhan Kunwar was to be jointly responsible for the revenue, and to take half the net profits as consideration for the trouble of management. This peculiar arrangement was maintained after the death of Dhan Kunwar; but as yet the settlement proceedings were imperfect, as the Rani's title had not yet been investigated, nor even had the rents been recorded. Accordingly Mr. Thornton was directed to review the settlement in 1836, with the result that engagements were taken from the village communities, except in 18 villages, 14 of which were settled with the Rani in full proprietary right, while in the remaining four she was granted a *malikana* of ten per cent.

Baledh.

The third *taluqa*, forming the share of Badan Singh, was known as Baledh, and consisted of 24 villages. Badan Singh accepted the assessments for 20 of these; but subsequently he failed to fulfil his engagements, and in 1819 the *taluqa* was settled with the village proprietors, the sole exception being Baledh itself, where he resided.

Minor *taluqas.*

The history of the other five *taluqas* held by collateral branches of the family was very similar. Kunja in pargana Bhagwanpur comprised 44 villages and was settled with Kora Singh, and in 1819 with his son, Bijai Singh. The latter created a serious disturbance in 1824, for which reference must be made to the district history: he was killed in an attack on Kunja, and his estate made over to the village proprietors. The Dadli *taluqa*, also in Bhagwanpur, consisted of 32 villages and two hamlets, which was settled with Gulab Singh, whose son, Mohar Singh, engaged in 1819 but afterwards failed to pay his revenue, with the result that a village settlement was effected in the following year. Talheri was held by Rani Daya Kunwar, the widow of Bakht Singh, and comprised 24 villages and three hamlets in

parganas Nagal and Deoband, for which she engaged at a progressive revenue amounting in 1818 to Rs. 16,941, though this was reduced in the following year to Rs. 15,000. She then made over the managements to a farmer, whose extortions caused such complaints that in 1822 Mr. Ross cancelled the engagements and admitted the village proprietors to settlement, except in Talheri itself, which the Rani held till her death, in addition to a *malikana* of five per cent. in seven villages. The Jataul *taluqa* in pargana Nagal consisted of 45 villages and 13 hamlets, and was held by Kura Singh, but he refused to engage and the settlement was made with the *zamindars.* A similar course was followed in the case of Chaundaheri, which comprised 42 villages and two hamlets in pargana Haraura, hitherto held by Basawan Singh.

It will thus be seen that very little remained of the vast estates of Landhaura and Parichhatgarh when Harbans Singh came into possession. He died in 1850, leaving a minor son, Raghubir Singh, whose property was placed under the management of the Civil Court of Wards. The whole comprised 38 villages, yielding in this district a revenue of Rs. 26,000 a year; but this was increased by the addition of eleven villages granted to the Raja for his good conduct during the Mutiny, and by two villages acquired by purchase. The estate was released in December 1867, and in April of the following year Raghubir Singh died under somewhat suspicious circumstances, leaving a son, Jagat Prakash, whose death followed shortly after. The management then passed into the hands of Kamal Kunwar, the mother, and Dharam Kunwar, the widow of Raghubir Singh. The latter is now in sole possession, and keeps the estate under her personal management, with the assistance of *karindas*, a large number of the villages being held on lease by contractors. After the death of her husband she adopted one Dalip Singh, a relative of Raghubir Singh's mother, but as he was not of the same *got*, the clansmen raised objections and the adoption was ultimately cancelled, Dalip Singh receiving a grant of money as compensation. In 1874 a considerable sensation was caused by the appearance of a man who claimed to be Raghubir Singh, stating that he had been poisoned and half burned, but that he had been

Present condition.

rescued and had recovered from his injuries. On inquiry, however, he was proved to be an impostor and was imprisoned. Subsequently the Rani adopted one Balwant Singh, whom she afterwards repudiated, but costly and protracted litigation ensued with the result that the adoption was finally upheld by the High Court. The property in this district comprises 49 whole villages and shares in 42 others, situated in every pargana except Gangoh, with a total area of 39,535 acres and a revenue demand of Rs. 37,709. There are 14 villages and 16 shares in pargana Manglaur, six villages and five shares in Jwalapur, 17 villages in Faizabad, three villages and five shares in Deoband, three villages and two shares in Nagal, four villages in Sultanpur, one in Rampur, one village and two shares in Roorkee, six shares in Bhagwanpur and one share in Saharanpur, Haraura, Nakur and Sarsawa. In addition the estate comprises land paying Rs. 42,122 as revenue in Meerut, Rs. 10,823 in Bijnor, Rs. 7,945 in Muzaffarnagar and Rs. 2,060 in Bulandshahr.

Jain landholders.

Several of the most important proprietors are Jains of the Agarwala caste. The richest family is that now represented by Rup Chand, son of Baru Mal; Atma Ram, son of Ganga Ram; Jambu Prasad, adopted son of Mitra Sen, and Gomati Kunwar, widow of Ugar Sen. They all reside at Saharanpur, but are unfortunately estranged by quarrels and litigation which have lately arisen over a question of adoption. Lala Jambu Prasad owns 20 whole villages and 86 shares in this district, with an area of 21,220 acres and a revenue of Rs. 25,111, in addition to land paying Rs. 1,003 as revenue in Muzaffarnagar. He has 14 villages and 21 shares in the Saharanpur tahsil, five villages in Deoband, eight shares in Nakur, and one village and 47 shares in Roorkee. Lala Atma Ram owns 22 shares in various parts of the district, with an area of 3,780 acres and a revenue demand of Rs. 4,207. Gomati Kunwar has eight villages and 20 shares, mainly in the Saharanpur tahsil, paying Rs. 9,073 on an area of 6,073 acres; and Lala Rup Chand is in possession of five villages and 30 shares, for the most part also in Saharanpur, with an area of 7,618 acres and a demand of Rs. 9,666. Another well-known Jain family is that represented by Badri Das and Janeshar Das, sons of Lala Paras Das, who was a

prominent personage in Saharanpur, being an honorary magistrate and Government treasurer of Meerut and Simla. They together own two villages and 19 shares, with an area of 3,611 acres and a revenue demand of Rs. 5,474. The former's portion comprises one village in Nagal and one in Bhagwanpur, five shares in Saharanpur and four in Muzaffarabad; while the latter's consists of five shares in Deoband, two each in Saharanpur and Rampur, and one in Nagal. Among other Jain landholders may be included Lala Atma Ram, the adopted son of Dip Chand of Saharanpur, who has two villages and eight shares in Gangoh, five shares in Saharanpur, four in Nakur, two in Haraura and one in Muzaffarabad, constituting in all 3,600 acres with a revenue of Rs. 4,531. There are also Rai Dhol Kirat of Saharanpur, who has two villages and one share in Gangoh, assessed at Rs. 2,600; Rai Parkash Chand of Nanauta, who has two villages and nine shares, paying revenue Rs. 2,696, in pargana Rampur and Kalwant Rai and Sukhpal Rai of Nakur, whose property consists of one village and seven shares in Nakur and two shares in Sarsawa, the whole assessed at Rs. 2,242.

Bania landholders.

The Vaish or Bania Agarwals occupy a prominent position among the proprietors of Saharanpur. The best known is Lala Joti Prasad, son of Lala Bansi Lal of Jagadhri in the Umballa district. He is the Government treasurer of Umballa, Saharanpur, Roorkee, Meerut and Kasauli, and he and his brothers have large estates both here and in the Punjab. His own property in this district comprises 8,363 acres assessed at Rs. 12,413, and consists of ten villages and seven shares in pargana Faizabad, two villages and two shares in Sarsawa, one village and two shares in Muzaffarabad, and one village and one share in Sultanpur. Lala Murli Lal is the son of Lala Ganeshi Lal Bhagat of Saharanpur, who was as well known for his piety and liberality as for his wealth. He is a banker by profession and is an honorary magistrate, being a member of both the municipal and district boards. His estate lies chiefly in the Saharanpur and Roorkee tahsils, especially in pargana Muzaffarabad, and is made up of five villages and 51 shares, with an aggregate area of 8,670 acres and an assessment of Rs. 9,288. The family of Kota in pargana Haraura is now represented by Lala Baru Mal,

the son of Charan Das, a large money-lender and grain-dealer. He holds eight villages and 13 shares in Rampur, one village and 19 shares in Haraura, and one village and two shares in Deoband, making up 5,451 acres in all, with a Government demand of Rs. 8,829. Lala Shimbhu Nath, the son of Sant Lal of Saharanpur, is an honorary magistrate and a member of the municipal board. He owns five villages and one share in the Jwalapur pargana, three villages and two shares in Muzaffarabad, three shares in Haraura, three in Saharanpur and one in Nagal, making in all 6,996 acres with a demand of Rs. 4,355. The Deoband family is represented by Lala Harnam Singh, the adopted son of Lala Loti Ram. He is an honorary magistrate and a member of the district board and of the Deoband municipal board. His estate comprises three villages and 24 shares, principally in the Nagal and Deoband parganas, with an area of 2,275 acres and an assessment of Rs. 3,928. Lalas Shankar Lal and Sundar Lal, the sons of Amolak Ram of Saharanpur, own one village and five shares in pargana Roorkee, with an area of 2,730 acres and a revenue of Rs. 2,592. At Bhagwanpur resides Lala Raghu Mal, who has 18 shares in the Roorkee tahsil assessed at Rs. 2,810. Lala Chiman Lal of Imlikhera owns twelve shares assessed at Rs. 2,680, and Lala Kundan Lal of Landhaura has six villages and six shares in the same tahsil, with an area of 2,582 acres and a revenue demand of Rs. 2,263, while he also owns land assessed at some Rs. 2,000 in the Muzaffarnagar district.

Musalman landholders.

Foremost among the Muhammadan proprietors comes Khan Sahib Muhammad Naim Khan of Kailaspur in pargana Haraura. He is a Kakarzai Pathan, whose ancestor, one Shahbaz Khan, came from Kandahar during the reign of Shahjahan and settled in these parts. Muhammad Usman Khan, the grandfather, and Hamid-ullah Khan, the father of the present owner, rendered good service during the Mutiny, and were rewarded with three villages assessed at Rs. 3,550, while the former also obtained a sword of honour. Muhammad Naim Khan is an honorary magistrate, a village munsif and a member of the Saharanpur district and municipal boards: he was given the title of Khan Sahib at the Dehli darbar in 1903. His

estate comprises 13 villages and 29 shares in all parts of the district, but chiefly in the Haraura pargana: the area is 6,863 areas and the revenue demand Rs. 10,402. He also owns a small property in Muzaffarnagar. Another Pathan is Nawab Muhammad Ibrahim Ali Khan of Kunjpura in the Karnal district. He is non-resident, and owns three villages in pargana Faizabad with an area of 2,113 acres and a demand of Rs. 3,325. The Pirzadas of Ambahta, who claim descent from the celebrated saint Shah Abdul Maali, are now represented by Shah Fakhr-ud-din and Shah Masaud Ahmad. They held 22 villages in revenue-free tenure, granted by Muhammad Shah to their ancestor, Shah Muhammad Baqir, but in 1847 the villages were settled with the resident *zamindars* and the *jagir* was converted into a mere assignment of the revenue. Another family of Pirzadas lives at Behat in pargana Faizabad. They are descended from Baha-ud-din Zakaria of Multan, and their ancestor, Shah Abdullah, who settled at Behat in the days of Bahlol Lodi, received a grant of several villages. His descendants acquired large estates as farmers; but much of these was lost, though the chief members, Shah Ghulam Shabbir and Shah Zahid Husain, possess much influence in the neighbourhood. Each owns twelve shares, those of the former being 3,618 acres in extent and paying revenue Rs. 5,120, while those of the latter cover 3,505 acres and are assessed at Rs. 4,941. The Turkmans of Lakhnauti once held a large estate, but they are now of no importance and their possessions are very small. The same may be said of the Pathans of Patehar, a Rohilla colony of Khizrzais in pargana Sultanpur. They are now represented by Fazl-ur-Rahman Khan, who pays about Rs. 1,100 as land revenue in this district and some Rs. 200 in Umballa. The Sheikhs of Rajupur, too, are much reduced. Their head is Sheikh Barkat Ali Khan, a nephew of the famous Sheikh Kalan: he was a settlement officer in Bhopal and now resides at Rajupur, where he owns a small amount of land. The other families are of more recent origin. Saiyid Agha Haidar, a barrister and banker of Saharanpur, is the son of Mir Ahsan Ali, who was Government pleader, and owns 16 shares in the Sarsawa, Saharanpur, Haraura and Rampur parganas, with an area of 2,753 acres and a

revenue demand of Rs. 3,580. Khwaja Mazhar Hasan, an Ansari Sheikh of Saharanpur, one of the most influential of the Muhammadan community, is an honorary magistrate and a member of the municipal board. His father was Khwaja Ahmad Hasan, a tahsildar, and his brother, Khwaja Muhammad Tahir Husain, holds a similar post. He owns seven shares in the Sultanpur and Saharanpur parganas, assessed at Rs. 2,071. Fazl-ur-Rahman and Muhammad Askari, Sheikhs of Saharanpur, hold two villages and three shares in the Roorkee tahsil, with an area of 4,255 acres and a revenue of Rs. 3,300; and Hakim Muhammad Yusuf of Saharanpur owns two villages and 19 shares, principally in Jwalapur and Haraura, aggregating 2,753 acres and paying revenue Rs. 3,580. The Raos of Sakrauda and Kheri are descended from converted Pundirs, who acquired large tracts of land in the Roorkee and Bhagwanpur parganas, but most of this was resumed and formed into jungle grants at the time of the first regular settlement. The estates are now of little importance. Rao Muhammad Ali Khan of Sakrauda died in 1884 without male issue, the property going to his daughter, his widows and his sisters. Debts followed on mismanagement and much of the land was sold, though small portions are held by his son-in-law, Rao Fateh Muhammad Khan and Masum Ali Khan, his nephew. The representative of Kheri is Rao Farzand Ali Khan, whose hopeless embarrassments have caused practically the whole of the estate to disappear.

The Powell estate.

In the early part of the nineteenth century Mr. James Powell, an Englishman who had taken service with the King of Oudh, became munsif at Saharanpur and in the course of time acquired a considerable property. His two sons, James and John Powell, obtained employment under Government. The former had five sons, James, John, George, William and Louis, while the latter had issue Richard, Alfred, Charles and Lionel. Mr. James Powell on his retirement settled at Dehra, and held most of the land left by his father. He died in 1860 and bequeathed his estates undivided to his sons, of whom four entered Government service, while the youngest managed the property. At the present time only two of the sons are alive, Mr. George Powell, who lives at Saharanpur, and

Mr. Louis Powell, who generally resides at Dehra. The latter owns two villages and six shares in the Faizabad pargana, paying revenue Rs. 2,407: while the former has eight shares in Faizabad and two in Nagal, assessed at Rs. 2,262. Mr. John Powell was employed as tahsildar and subsequently was appointed in 1856 to reorganise the postal service, but on the outbreak of the Mutiny he was killed at Moradabad. His widow and children were awarded pensions, in addition to the income from their estates in the Deoband and Nakur tahsils. All but the eldest son are still living, and the brothers usually live at Saharanpur during the cold weather. Mr. Alfred Powell owns eight villages and three shares in Gangoh, five shares in Nagal and three in Rampur, as well as small plots in Faizabad and Saharanpur; the whole amounting to 13,513 acres, with a revenue demand of Rs. 10,811.

Other landholders.

The only Rajput landholder of importance is the so-called Rana of Jasmaur, Dharam Singh, the head of the Pundirs. The family was once powerful and wealthy, but much of the property was dissipated during the minority of Pitambar Singh, the father of the present holder, owing to the dishonesty of agents. The estate now comprises four villages in Muzaffarabad and two in Faizabad, with an area of 6,977 acres and a revenue demand of Rs. 3,269. The Gujars of Mundlana, represented by Kundan Singh, own 15 shares in Manglaur and other parts of the Roorkee tahsil: the area is 1,797 acres and the revenue Rs. 2,362. Twelve shares in the same tahsil are owned by Risal Singh of Jabarhera, who pays Rs. 3,802 on a total area of 2,851 acres; and Padhan Maharaj Singh owns the village of Adampur in Bhagwanpur and a portion of Manakpur in Manglaur, aggregating 2,032 acres and assessed at Rs. 3,559. Several of the religious fraternities at Hardwar and Kankhal own considerable estates. Gokul Das Udasi of Kankhal is the recorded owner of four villages, and one share in Jwalapur and two shares in Manglaur, with an area of 3,199 acres and a demand of Rs. 4,412. Bhola Gir Goshain of Kankhal holds two villages and six shares in Jwalapur and 15 shares in Roorkee, 4,024 acres in all, with a demand of Rs. 4,818. The Panchaiti Akhara of Nanakshahi Faqirs at Kankhal holds five shares in Jwalapur assessed at

Rs. 2,947 ; and Mahant Tulsi Das of Santhor Shah owns one village and four shares in Jwalapur together with two villages and two shares in Roorkee, the whole amounting to 2,587 acres with a revenue demand of Rs. 2,561. At Kankhal, too, there is a wealthy family of Khattris represented by Jagannath Prasad, who owns two villages and four shares in pargana Jwalapur assessed at Rs. 2,071. The Kalwars of Landhaura hold 14 shares in the Roorkee tahsil, principally in the Manglaur pargana, with a revenue of Rs. 2,007. Among the other large landowners mention need be made only of Lala Manohar Lal Bhargava, Rai *Bahadur*, of Thapal Ismailpur, who owns 4,001 acres in that village and pays Rs. 5,150 as revenue. He belongs to the Nalapuria family of Rewari in the Gurgaon district, and his ancestors were wealthy bankers who rendered great service to the British in the war with Bharatpur and on other occasions, and had over a hundred branch establishments in the United Provinces, the Punjab and Rajputana. The Thapal estate was acquired as a jungle grant more than forty years ago by Lala Sheo Narayan, Government treasurer of Firozpur. His son has settled there and takes the greatest interest in the development of the property. He is an honorary magistrate and is well known both in this district and in Dehra Dun.

Cultivating castes. In every tahsil except Deoband, where the Rajputs slightly exceed them, the Gujars are the predominant cultivating caste. As a body they are husbandmen of no great skill ; but for many years their industry has been on the increase, and instances of excellent cultivation may be found in many of their villages. The same may be said of the Rajputs, both Hindu and Musalman, though often they suffer from the disabilities of their rank, as also do Brahmans, who are forbidden to handle the plough. Next in order come Garas and Sainis, who are agriculturists of a very high order, the former being remarkably skilful and hardworking, though their fondness for litigation renders them unpopular with many landlords. The Tagas are equally industrious but less skilled, and then follow Chamars, who are rather agricultural labourers than farmers ; Jats, who come in the first flight of cultivators, but are restricted within comparatively narrow limits ; Brahmans, who in most cases are cultivators

only in name; Chauhans, who are practically confined to the Roorkee tahsil, but there exhibit conspicuous merits; and Jhojhas, who are mainly found in the same subdivision and are without question the best cultivators of all. The other castes are extremely numerous but relatively unimportant, the best represented being Pathans, Kahars, Koris, Ahirs, Banjaras, Telis, Rors and Kambohs. Further details of their distribution will be found in the various pargana articles.

Cultivating tenures.

The cultivating tenures present no greater peculiarities than the forms of proprietary right. A noteworthy feature in this district is the large area cultivated by proprietors in the form of *sir* and *khudkasht*, amounting in 1906-07 to 305,081 acres or 33·26 per cent. of the total area included in holdings, which in the same year was 917,139 acres in all. The proportion is highest in the Deoband tahsil, where it reaches the surprising figure of 48·67 as compared with 34·92 in Nakur, 29·23 in Roorkee and 22·85 per cent. in Saharanpur. Large as it is, however, there has been a great reduction in the area of late years, the total in 1866-67 being 376,271, while in 1886-87 it was 320,371 acres. The reason lies mainly in the losses of the old cultivating communities and the acquisition of their lands by large *zamindars*, the former being now tenants instead of landowners. Prior to the last settlement no attempt seems to have been made to differentiate *sir* and *khudkasht*; and this was one of the reasons why the enforcement of ex-proprietary rights conferred by the Rent Act of 1873 was so rare, although it is unquestionable that the surrender of such rights was specified in most of tho sale-deeds. In 1886-87 only 3,335 acres were entered as held by ex-proprietary tenants; but Mr. Porter's prophecy that the accurate definition of *sir* and the growing knowledge of the law would lead to an immense increase in the area has been abundantly justified, since in 1906-07 as much as 32,150 acres or 3·51 per cent. was thus held, the proportion ranging from 5·25 in Nakur and 4·35 in Deoband to 2·69 in Saharanpur and to 2·18 per cent. in the Roorkee tahsil. Nothing need be said of the 7,897 acres or ·86 per cent. held free of rent or at favoured rates, for there are no means of comparing present with past figures: the area is much the same in each tahsil, though actually the Nakur and Sultanpur parganas show the highest proportions.

Occupancy tenants.

The cultivator with a right of occupancy appears to have been unknown in the district prior to Act X of 1859. In 1838 Mr. Thornton found a few persons of this class in the shape of ex-proprietors in Jwalapur and the Jabarheri *taluqa*. Rent-paying tenants were invited by him to advance their claims to fixity of tenure; but such claims were far from numerous, and were made merely with the object of holding at a fair and never at a markedly low rent. Even to a comparatively late date the distinction between the rent-paying tenant and the revenue-paying proprietor was very small, and in many instances the rent was calculated merely as an advance of 25 or 50 per cent. on the Government demand. The declaration of status, however, brought about by the legislation of 1859 caused the system of regulating rents by custom to disappear: the *zamindars* began to exercise their power of enhancement, with the result that the occupancy tenant with his almost unassailable position became an object of enmity. In 1866-67 the occupancy area was 151,763 acres, and in the course of twenty years this rose to 178,636; but it was remarked at the settlement that the landlords as a class were bitterly opposed to the accrual and exercise of these rights, chiefly on the ground that the legal difficulties to be encountered rendered it almost impossible to maintain the rent at a fair figure. There had actually been a decrease in the parganas of Nagal and Faizabad, especially in the latter, where in some cases the tenants petitioned not to be entered as occupancy, on the ground that they had not the strength to contend with their landlords; while those who asserted their rights were sometimes subject to gross persecution. Since the settlement the conflict has been maintained, and success has generally lain with the *zamindars*. Some of the latter have never permitted rights to accrue, while in other estates, such as Landhaura, Jagadhri, Raipur and Behat, such pressure has been brought to bear on the tenants that many have surrendered their rights by formal deeds of relinquishment. The landlords of the district took a leading part in the agitation against the new law of 1901, and immense numbers of ejectment notices were issued before the enactment came into force. The result is to be seen in the present condition of affairs, for in 1906-07 the occupancy area had shrunk to 150,005 acres or only

16·36 per cent. of the area included in holdings. The proportion is naturally lowest where proprietary cultivation is most prevalent, being 13·07 in Nakur and 13·99 in the Deoband tahsil, though it is no more than 15 per cent. in Roorkee, and the Saharanpur tahsil alone shows with 22·46 a higher figure than the general average.

Tenants-at-will.

There remain the ordinary tenants without rights who hold 422,006 acres or 46·01 per cent. of the total area, the amount ranging from 52·93 in Roorkee and 51·09 in Saharanpur to 45·69 in Nakur and 32·15 per cent. in Deoband. The area increased from 270,108 acres in 1866-67 to 319,389 at the last settlement, and the subsequent extension is due not only to the destruction of occupancy and the disappearance of proprietary cultivation, but also to the reclamation of new lands for fresh tillage.

Grain rents.

In former days rents seem to have been paid almost exclusively in kind, and Mr. Thornton stated that it was the prevailing opinion in his day that this was the only natural system, the substitution of a money rate being contingent on the consent of the cultivator. Such a state of affairs was perhaps inevitable. Many estates were unsaleable because the new-comer could collect nothing but low rents in kind which would render his speculation unprofitable, since otherwise the tenants would only grow the worst grains and for the better crops would rent land from their neighbours. In 1863 Mr. Vans Agnew reported that in 680 villages the rents were paid in kind, in 760 they were partly in kind and partly in money, and that in 169 only did money rents prevail. His views differed from those of Mr. Thornton, for he considered that due to the reluctance of the *zamindars* to effect conversion, since they feared that the acceptance of a cash rent, which was strenuously desired by the majority of the tenants, would confer on the latter some sort of proprietary status. Nevertheless the process of conversion went on rapidly, and by 1866-67 the grain-rented area was but 169,765 acres or 40·2 per cent. of the rent-paying total, while twenty years later it had dropped to 144,643 acres or 28·8 per cent. These figures, however, are not strictly accurate, since they exclude the many instances where the rent was really payable in grain, but was regularly converted into and paid in cash at the market rates.

Further they exclude the *zabti* area, in which the rents, though paid in cash, are very different from ordinary cash rents. The term *zabti* is applied to customary rents paid on lands sown with certain crops, principally sugarcane, cotton and *chari* or *juar* grown for fodder in grain-rented villages: the usual rates being Rs. 6 per *pakka bigha* for cane, Rs. 3 for cotton and Re. 1-8-0 for *chari*, though higher and lower amounts are frequently to be found. Since the settlement the conversion of rents has made great headway, and in 1906-07 the grain-paying area was only 77,476 acres, the bulk of which lay in the more precarious tracts such as Jwalapur, Faizabad, Muzaffarabad and Sultanpur. In the Deoband tahsil grain rents are very rare, and are found only in places in the beds of streams or on the banks of *jhils* where the produce is necessarily uncertain. Where still existing, grain rents are generally determined by *kankut* or appraisement of the standing crop. The form known as *batai* or division after harvest is theoretically the fairer, but it has the disadvantage of entailing on the landlord the trouble and expense of watching the crop till it reaches the threshing-floor, and is consequently unpopular with that class. On the other hand, it is often possible for the most honest valuer to make serious mistakes, and the *kankut* system lends itself to obvious abuses. The proportion taken by the landlord is customarily that called *nisfi* or one-half. Sometimes this is exceeded, but much more frequently a smaller share is demanded and in many cases the amount does not exceed one-third of the whole. Another form of grain rent, and one which is viewed with great disfavour by the tenant as combining all the drawbacks of payment both in cash and in kind, is that whereby a fixed amount of a specified grain, usually wheat, is paid per unit of area, irrespective of the capacity of the land to produce that kind of grain.

Cash rents.

This form doubtless provides the reason for the usual custom of paying cash rents at a specified rate per *bigha* of the holding, though it is equally common to find the rent assessed at a lump sum on the entire area, soil rates in the district being quite unknown. Competition rents are of fairly recent origin, and it would seem that the earliest cash rents were of a more or less

customary nature. At the time of the penultimate settlement the average rates were fairly steady throughout the district, ranging from Rs. 5-4-0 or Rs. 6 per acre for the best land to Re. 1-14-0 or Rs. 2-4-0 for the worst. The average was from Rs. 3-12-0 to Rs. 4-8-0, but the grant lands recently brought under cultivation in the northern parganas did not fetch more than Re. 1-2-0 per acre. An attempt was then made to ascertain the rise in rents since 1840, but the data were insufficient. The estimated rental of certain villages had increased by some 29 per cent. and considerably more where canal irrigation had been introduced, though of course the valuations were those of different officers working on very different methods. At the last settlement in 1886-87 the average occupancy rental was Rs. 3-8-3, varying from Rs. 3-2-3 in Roorkee to Rs. 3-12-11 in the Saharanpur tahsil, while that of tenants-at-will was Rs. 4-4-2, the highest rate being Rs. 4-9-4 in Deoband, as compared with Rs. 4-6-5 in Saharanpur, Rs. 4-2-2 in Nakur and Rs. 4-0-3 in Roorkee. The increase in the rental during the ensuing twenty years has been very marked, and has fully kept pace with the increasing demand for land and the enhanced value of agricultural produce. In 1906-07 the general average for occupancy tenants was Rs. 4-4-10 per acre, the highest rate being Rs. 4-10-1 in the Deoband tahsil, followed by Rs. 4-4-8 in Saharanpur, Rs. 4-4-0 in Nakur and Rs. 4-1-0 in Roorkee. The average for tenants-at-will throughout the district was Rs. 6-3-5 per acre, the rate for this class also being highest in Deoband, where it amounted to Rs. 6-15-1, as compared with Rs. 6-6-2 in the Saharanpur tahsil, Rs. 5-14-2 in Roorkee and Rs. 5-12-1 in Nakur. That is to say, the recorded rents for privileged tenants have increased by about 23, and for tenants-at-will by no less than 46 per cent. in the course of two decades. No comparison is possible in the case of *sir* and other land sub-let to *shikmis*, since the former rental paid by this class is not ascertainable. This area in 1906-07 amounted to 80,643 acres or rather more than one-fourth of the proprietary cultivation, and the average rate was Rs. 6-4-0 per acre. It was highest in the Saharanpur and Roorkee tahsils, and especially in pargana Manglaur, where the average was no less than Rs. 7-4-3.

Condition of the people.

There can be no doubt that the general prosperity of the district has made a great advance during recent years. At annexation the general condition was lamentable, owing partly to the farming system of the Marathas and partly to the constant and destructive inroads of the Sikhs. Then followed a period of heavy assessments and continuous depression, which resulted in the ruin of many of the old proprietary communities, while the improvements effected by the regular settlements were retarded by famines and the convulsion of 1857. The ensuing thirty years, however, witnessed a marked amelioration, accompanied by a general rise in the standard of comfort, an increase in the remuneration of labour and a very distinct growth of thrift and industry. Since the settlement of 1890 the advance has been even more striking. There has been a large expansion of the cultivated area and an immense development of irrigation, so that few parts of the district can now be classed as unprotected, owing not only to the extension of the canal system, but also to the recent impetus given by the Agricultural department in the matter of well-boring. The drainage has been greatly improved, so that complaints of waterlogging are now seldom heard, while incalculable benefits have accrued from the spread of the railway systems. The district is still perhaps somewhat backward in the matter of roads, but in spite of the great cost of construction, especially in the north where so much bridging is involved, progress is slowly maintained, and communications are at any rate sufficient for the conveyance of produce to the railways and markets. The agricultural community is in a much more flourishing state than formerly. At the last settlement the total demand represented 44·1 per cent. of the assets, applying the average tenant rent to the large area of proprietary cultivation, while in 1908 the corresponding proportion is but 33·6 per cent. or even less, since in several estates the rental is undoubtedly concealed. The proprietors are generally in good circumstances, though domestic extravagance or costly litigation have brought several properties to the hammer, thus swelling the acquisitions of the money-lenders. The Musalmans, with a few exceptions, are less prosperous than the Hindus, especially in the outlying towns of Nanauta, Lakhnauti, Manglaur and Chilkana, where the decay

of fine houses bears witness to the loss of affluence and to the inevitable effects of the Muhammadan law of succession, the plurality of wives, the want of commercial capacity and an ineradicable tendency towards extravagance. In the case of the tenants the rise in prices and the increase of irrigation have been more than commensurate with the rise in rents. On the other hand there is some suspicion of rental concealment in some of the grain-rented estates, while as a whole the tenantry in *zamindari* villages are generally backward in education and independence, and are much in the hands of the *patwari* and the landlord. Rent receipts are in many cases unknown, but nevertheless there is very little rack-renting, and on the whole the tenant obtains his fair share in the general prosperity. The increased cost of living affects him but little, as he lives on his own produce and pays less for salt than in former years. The urban worker feels it more, and this fact is mainly responsible for the rise in the wages of artizans; but the pressure has fallen most heavily on the clerical class, and it is to this that the increasing difficulty in obtaining qualified men for the Government offices must be attributed. The most striking feature, however, of the last two decades has been the development of industrial and commercial activity, especially at Saharanpur, where the list of factories and works is constantly on the increase. This development is illustrated by the large number of flourishing banking concerns and also by the extensive business done by the legal practitioners, the growing volume of civil litigation in the judicial courts being a sure index of local prosperity.

CHAPTER IV.

ADMINISTRATION AND REVENUE.

District staff.

The district is in the charge of a magistrate and collector, subordinate to the commissioner of the Meerut division. The magisterial staff at headquarters ordinarily comprises a joint magistrate and three deputy collectors, while the Roorkee tahsil forms a subdivision under the control of a joint magistrate residing at Roorkee, in addition to a deputy collector as treasury officer at that place. There are also four tahsildars and several honorary magistrates, including at the present time a bench of four at Saharanpur, one at Deoband, and Lala Manohar Lal, who exercises third-class powers within the police circles of Fatehpur, Muzaffarabad and Bhagwanpur. The civil courts are those of the district judge, the subordinate judge and the munsifs of Saharanpur and Deoband, the latter's circle comprising the Deoband and Roorkee tahsils, while the subdivisional officer at Roorkee is invested with the powers of a judge of small causes. The remaining staff consists of the superintendent of police and an assistant, the civil surgeons of Saharanpur and Roorkee, three assistant surgeons, the district surveyor, the postmaster, the chaplain of Roorkee, the headmasters of the district and Roorkee schools, and the superintendent of the botanical gardens. Further, there is a number of officers employed under the Canal department, including the executive engineers of the upper division, eastern Jumna canal, and the northern division, Ganges canal, with two subdivisional engineers in either case, and a canal deputy magistrate.

Garrison.

There is no garrison at Saharanpur, the only military force being a detachment of railway volunteers. At Roorkee, however, is a cantonment of considerable importance, the place being the headquarters of the 1st Bengal Sappers and Miners and also station for three batteries of Royal Garrison Artillery, as well as a detachment of Royal Engineers and a half troop of Supply and

Transport bullocks. The management of the cantonment is entrusted to the usual committee, and the income and expenditure amount to some Rs. 6,000 annually.

Formation of the district.

The internal changes in the administrative subdivisions have been extremely numerous and complicated since the district first came into the hands of the British in 1803. Immediately after the capture of Aligarh the collectors of the border districts were directed to take charge of the conquered territory and to provide for its administration, the area being divided between Moradabad, Etawah and Fatehgarh. At the end of October 1803 a commission met at Koil and proposed the distribution of the area into four divisions, of which the first comprised 53 parganas now included in the Saharanpur, Muzaffarnagar and Meerut districts. A week later it was directed that this division should be split up into two portions, the northern including the existing district and about half of Muzaffarnagar: this was entrusted to the charge of the Resident at Dehli, while the remainder was attached to Moradabad. The arrangement was obviously a makeshift, and in August 1804 the northern division became a separate district with headquarters at Saharanpur. No further change of importance occurred till 1824, when a sub-collectorship of Muzaffarnagar was created, with revenue jurisdiction over fourteen parganas, and two years later this tract was converted into a regular district reducing Saharanpur to 25 parganas only. These subdivisions were, however, very different in area and extent to those at present in existence. Many of the old names are still retained, but a large number have disappeared, while others are the creations of the British Government. The first great reorganization took place in 1842, at the time of the first regular settlement, but already one pargana, Ambahta, had been absorbed into Nakur, apparently before the constitution of the Muzaffarnagar district, though the exact date cannot be ascertained.

Internal changes.

The changes effected in 1842 were so extensive that they require somewhat detailed notice. No fewer than nine parganas were broken up, and their component villages distributed among the adjoining tracts. Malhaipur, which had existed since the days of Akbar and lay to the east of Saharanpur, was absorbed

among the neighbouring parganas, the greater portion going to Saharanpur Haveli. Patehar, which had been formed by Anwar Khan from the lands of Behat Kanjawar in the days of Najib-ud-daula, comprised 31 villages between the Eastern Jumna canal, the Maskara stream and the Jumna, and was distributed between Sultanpur and Faizabad. The small *mahal* of Jahangirabad, which had been separated from Raipur Tatar in the reign of Shahjahan, was abolished and divided among Faizabad, Sultanpur and Jwalapur. Sakrauda, originally separated from Jaurasi by Rao Qutb-ud-din in the time of Zabita Khan, was partly restored to Jaurasi and partly given to Muzaffarabad. The latter also received Kheri, which had been taken from Roorkee at the same period. Jamalgarh, formed from Gangoh by one Jamal Khan in the time of Najib-ud-daula, was now given to Nakur. The old Akbari pargana of Lakhnauti was broken up, 57 villages being transferred to Gangoh, seven to Rampur and one to Katha. Nanauta, a subdivision of equal antiquity, was distributed between Rampur and Gangoh, while a number of villages were assigned to Muzaffarnagar. Chausath Kheri, which consisted of many scattered villages, was absorbed by Gangoh and Rampur, except for 14 villages handed over to Muzaffarnagar, as they lay within the boundary of that district. In addition to these the pargana of Thana Bhawan was transferred bodily to Muzaffarnagar, with the exception of a few detached villages assigned to those parganas within whose geographical limits they lay. Altogether the changes involved the transfer of 134 villages to Muzaffarnagar, 95 being received in exchange. The result of this rearrangement was that the district now contained 15 parganas, in all but three instances corresponding in name to those at present in existence. On the other hand, in almost every case the area was very different from the present figure, this being due to a further extensive series of changes that was sanctioned in 1855. This broke up all the parganas to such a degree that it is now impossible to recognize any of the old subdivisions. For example, Saharanpur then gave up 48 villages to five parganas and received 21 villages from six parganas in exchange; and a similar state of things occurred throughout the district. Three parganas were abolished altogether. Behat with its 91 villages

was assigned principally to Muzaffarabad, Faizabad and Saharanpur. Jaurasi, which had been in existence from the time of Akbar and contained 153 villages, was divided between Roorkee, Manglaur, Bhagwanpur and Jwalapur; and Katha, separated from Deoband by Najib-ud-daula, was split up between Deoband, Rampur and Nagal. At the same time three new parganas were created under the names of Haraura, Nagal and Bhagwanpur. Further details of these changes and transfers will be found in the various pargana articles.

Present subdivisions. At the present time the 15 parganas are distributed among four tahsils, the existing arrangement having been in force since 1855. The distribution of the parganas before that date is somewhat uncertain. In 1840 there were five tahsils, Saharanpur, including the parganas of Saharanpur, Malhaipur, Muzaffarabad, Jahangirabad, Behat and Faizabad; Deoband with parganas Deoband, Rampur, Manglaur and Ambahta; Sarsawa with Sarsawa, Sultanpur and Nakur; Jwalapur with Jwalapur, Jaurasi, Roorkee and Sakrauda; and Thana Bhawan with Thana Bhawan, Nanauta, Gangoh, Lakhnauti and Chausath Kheri. As now constituted the Saharanpur tahsil comprises the four parganas of Saharanpur, Faizabad, Muzaffarabad and Haraura; tahsil Deoband contains Deoband, Rampur and Nagal; that of Roorkee consists of the Roorkee, Bhagwanpur, Jwalapur and Manglaur parganas; and the Nakur tahsil is made up of Nakur, Sultanpur, Sarsawa and Gangoh. In 1896 the Roorkee tahsil was formed into a subdivision with a separate treasury, and placed under the charge of a joint magistrate assisted by a deputy collector for treasury work. It remains, however, as before, under the general control of the collector of Saharanpur.

Fiscal history. From the foregoing account it will be evident that to trace the fluctuations of the revenue demand from the introduction of British rule is a matter of extreme difficulty, while it is quite impossible to ascertain the revenue assessed on each pargana at successive settlements, in view of the many and extensive changes in area and the number of villages. When the northern division of Saharanpur was first constituted it was placed in the charge of Mr. J. D. Guthrie, who was instructed to make a settlement for one year with the actual proprietors or farmers of

respectability, or failing this to entrust the collections to tahsildars. All large estates were to be settled by the collector in person, and security was to be taken, where possible, for the due payment of the revenue. At the same time all arrears due to the Marathas were to be remitted, and the land revenue proper was to be carefully distinguished from miscellaneous dues and taxes that had previously been in force. It was, however, found impossible to carry out these orders to the letter. Fully half the district as then constituted was held at a fixed revenue by a few powerful chiefs, whose occupation dated from the troublous times of Rohilla and Maratha rule. These tenures were known as *muqarraris*, and it was deemed impolitic or impossible to interfere with them. The revenue assessed for 1803-04 was only Rs. 1,77,371, but this excluded the parganas of Behat, Muzaffarabad, Jahangirabad and Sarsawa, held by Nawab Najabat Ali Khan; and those of Roorkee, Jwalapur, Jaurasi and Manglaur, comprising the estate of the Raja of Landhaura. For these portions the old fixed rates were retained, the money being paid direct into the Meerut treasury. The actual sum collected in the northern division amounted to Rs. 12,49,182; but this figure is of no value for the purpose of comparison, since it is impossible to ascertain how much should be credited to the account of the present district of Muzaffarnagar.

1804-05. A second summary settlement for one year was made by Mr. Guthrie in 1804-05, two assistants being employed in the work. The directions for this settlement were to the effect that the collector should examine the rent-rolls of each village for the three preceding years, and in all possible cases take engagements from actual proprietors at an easy revenue. The settlement was to be made on the basis of actual possession, and even in *taluqas* the subordinate proprietors should be admitted to engage where they could be found. For the purposes of collection tahsildars were appointed, their remuneration amounting to 11½ per cent. on the amount realized, while they were to be responsible for the police of their respective charges. They were to give security equal to the largest instalment they had to collect, and were to be assisted by the *qanungos*. The revenue on this occasion, excluding the sums paid by the great farmers, showed a considerable increase on that previously collected.

The third settlement was made under Regulation IX of 1805 for a period of three years, to terminate in 1807-08, Mr. Guthrie still being in charge. He confirmed the great chiefs in their possessions at the old rates, while at the same time he was compelled to farm many other estates owing to the depressed condition of the smaller proprietary bodies. For a long period agriculture had been gradually on the decline by reason of the exactions practised by the Marathas, and subsequently because of the repeated incursions of the Sikhs, the Marathas and Pindaris. This settlement appears to have been made on the basis of the value of the crops produced; and where any objection was raised, the amount was ascertained by actual measurement of the crops on the ground, and the extent of the land cultivated. The demand for the ordinarily settled portion of the district was Rs. 2,95,742, representing a substantial increase: and much more than this was realised in the second and third years, when a marked improvement in the condition of the tract became visible. This was illustrated by the extension of cultivation in the north, where the Banjaras had taken to settled habits, though along the Jumna progress was less rapid, waste being still very extensive, villages few, and the owners sunk in indigence as the result of Sikh depredations. The condition of the eastern tracts, on the other hand, was very flourishing, as the great landowners in these parts had been strong enough to defy or buy off the Sikh invaders and to compel the Maratha rulers to accept a moderate revenue. This was, of course, of no direct advantage so far as the actual demand was concerned, for the amount paid by the chieftains was but an insignificant proportion of the assets. Elsewhere, we are told, the share claimed by the State was in general one-half of the produce, the remaining moiety being the proprietor's share; though in several places, according to established local custom, the latter exceeded one-half, and on an average amounted to nine annas in the rupee. 1805-08.

This settlement was followed by a second, also for a period of three years, to last from 1808-09 to 1810-11 inclusive. It was conducted by Mr. Dumbleton, under the same Regulation IX of 1805, and was framed on the curious principle of adding to the old assessment two-thirds of the difference between the amount of 1808-11.

that assessment and the value of the actual produce of the land at the termination of the expiring settlement. This naturally yielded a large increase of revenue, the total for this district, apart from the great estates under farm, being Rs. 4,76,805. This amount was never collected, since the drought of 1807-08 had produced serious embarrassments, so that considerable reductions had to be allowed in each year of the settlement; while at the same time, notwithstanding the anxiety of the revenue officers to admit the real proprietors to engagements extensive recourse to farming still appeared to be necessary. This was partly due, however, to the large extent of waste land still existing in many parganas, farms being given on easy terms in the hope of encouraging development. For the same cause it was proposed to exclude the northern division of Saharanpur from the scheme then contemplated of a permanent settlement for the conquered districts. This had been already suggested in 1805, and the project constantly recurred during the next sixty years.

1812-15. The same Regulation IX of 1805 had provided that at the expiration of 1810-11 a fresh settlement should be concluded with the same persons, if willing to engage, for an additional period of four years, at a fixed equal annual revenue formed by adding to the annual revenue of the second triennial settlement three-fourths of the net increase found to have accrued during any one year of that period. Consequently engagements were taken for a quartennial settlement to last from 1811-12 to 1814-15. It was during the currency of this settlement that the remaining *muqarraris* lapsed by the death of the grantees. One of these was *taluqa* Patehar, formerly belonging to Murtaza Khan, and consisting of 31 villages, which were settled in every instance with the subordinate proprietors. The other was the great Landhaura estate, comprising no fewer than 827 villages and portions of 36 others; and this was specially assessed by Mr. Chamberlain. The history of this estate has already been narrated, but the general result was that the Raja's heirs were ultimately found to be real owners of only a small portion; the great delay in the decision as to who were the true proprietors caused much loss of revenue and seriously interfered with the

development of many villages; and the breaking up of the *muqarrari* largely increased the Government demand, though extensive reductions were afterwards found necessary. The revenue of this settlement, which for the first time represented that of the entire district, was Rs. 9,38,935.

On its expiry a fresh assessment was made for five years under Regulation X of 1812, and was conducted by Mr. Chamberlain. This officer appears to have ascertained the actual outturn of each estate, including the profits derived by *zamindars* from the cultivation of small revenue-free plots; and, after deducting the percentage prescribed by the regulations, he fixed the balance as the amount due to Government. It was not contended that the estimates were excessive, but the fault of this settlement lay in the fact that the margin of landlords' profits allowed was far too small, though in this the settlement officer was merely carrying out the orders he had received. Consequently the revenue proved unrealisable, and when Mr. Chamberlain died shortly after concluding the settlement, Mr. Calvert was instructed to reduce the demand. Numerous modifications were introduced, and ultimately the figure of Rs. 10,60,068 was sanctioned by Government. The reductions had been effected by relinquishing in many instances the progressive increase originally imposed; but the total still remained too high and partial revisions subsequently led to further reductions, so that the revenue of the last year was considerably lower than that of the first year of the new assessment. 1815-20.

This settlement was extended from 1818 for a second period of five years, to run from 1820-21 to 1824-25, and during its currency Meerut and Muzaffarnagar became separate districts, the demand for Saharanpur alone being Rs. 9,99,152. Before its termination Regulation VII of 1822 had been passed, but owing to unforeseen delays in preparing the vernacular edition of the enactment, orders were given in 1824 that the introduction of the procedure should be postponed, since the short time that would elapse before the expiry of the quinquennial settlement would be insufficient to admit of the successful working of the elaborate machinery then prescribed. Consequently the settlement was extended for a further period of five years, to terminate in 1821-30.

1829-30. This was the easiest solution of the difficulty, but at the same time it was open to many objections. In the short-term settlements enormous fluctuations took place in the assessment of individual estates, rendering smooth working impossible, while such a result was unavoidable in the absence of the trustworthy maps or village papers, and also under the prevailing system of grain rents. In every case the demand was fixed according to the assumed value of the annual produce; and whereas this is always a difficult matter, it must have been doubly so in troubled times, when communications were very imperfect, and access to a market was seldom easy. Apart from this, the limit of the assessment was not the real value of the land, but the possibility of effecting a transfer should the owners refuse to engage. Proprietary right, as now understood, was then an innovation, the introduction of which proved no more easy here than in the permanently-settled tracts of the Benares province. There was also the question of farming, which had to be adopted in the many instances in which ownership was undecided, and this led inevitably to widespread abuse. It was also difficult to secure the requisite number of satisfactory persons to undertake farms, and consequently the areas leased were often extremely small. There had been but little change since the time of Mr. Guthrie, who had reported that the smaller proprietary bodies, either from want of stock to perform the business of cultivation or from the want of confidence in the permanency of the new order, frequently resigned the probable advantages to be gained by managing their own lands for the certainty of sharing in a stipulating part of the produce. The resumption of the Landhaura estate merely enhanced the difficulty already existing. A notable instance of this occurred in the case of Sheikh Kalan, who belonged to an old family in Rajupur, and had been engaged under the Maratha government. At the conquest he entered British service in an irregular corps, and retired with the rank of captain in 1810. In 1818, when farmers were required for the Landhaura *muqarrari*, he came forward and offered to take as much as he could get in farm. Gradually he obtained possession of 149 villages in various manners, his usual practice being to sub-farm the villages to the inhabitants at a considerable profit and then to

make defaulters execute bonds for the sum due to him on their engagements. He extended this practice by having recourse to a system of advances, with the result that numbers of cultivators fell into his power and the people became thoroughly discontented. In 1822 an inquiry was instituted by the Board of Revenue, and innumerable complaints were made of Kalan's arbitrary and oppressive conduct. It was recommended that the lease should be cancelled and the settlement made to the village communities, but when this was effected Kalan claimed a large sum as damages, which was subsequently adjusted by an offer of Rs. 15,000. Many other cases of a similar nature occurred in the district, largely as the result of the policy of auction sales in vogue at that period.

First regular settlement.

The first regular settlement was that effected under Regulation IX of 1833. It is generally, and justly, associated with the name of Mr. E. Thornton, though several other officers had a hand in the work. Pargana Manglaur was settled in 1835 by Mr. Plowden, and his assessment remained in force till 1841, when it had to be reduced to the extent of about 9 per cent. Mr. Turner in 1834 settled Deoband and Rampur, and the next year the rest of the Roorkee tahsil was undertaken by Mr. Grant, who also was responsible for the now extinct pargana of Malhaipur. Six revenue-paying and 39 resumed *muafi* villages were assessed by Mr. Conolly, while 124 *muafi* villages and the jungles of Kheri, Pathri, Kansrao and the Siwaliks were omitted altogether. Mr. Thornton settled the remainder of the district, and revised the work of Messrs. Grant and Turner. He was engaged in the task from 1836 to 1838, while the proceedings were concluded and the records completed by Mr. M. P. Edgworth in 1841. For the purpose of preparing a record-of-rights as required by the Regulation, a survey was first necessary. This was begun in 1833 and finished in 1836, but unfortunately the results were very unsatisfactory, as the measurements were restricted to cultivated land only, and at the same time were materially incorrect: much land that was considered fit for cultivation, but not actually under tillage, was included, and no uniform system was adopted for describing the soils and distinguishing irrigated fields from dry, to say nothing of the

10

usual omission to differentiate irrigated and irrigable. No doubt such classification was a very difficult matter, since distinctions of soil were not recognised in the large area for which rents were paid in kind.

Systems adopted.

The assessing officers were, however, compelled to utilize such material as was at their disposal, and had consequently to accept the recorded classification of soils into *rausli*, *dakar* and *bhuda*, each of which was subdivided into irrigated and dry. In order to obtain and apply soil rates various methods were adopted. Mr. Grant attempted to obtain the gross outturn of each estate by assuming the relative proportion of each crop in each class of soil and the outturn of each crop per acre. He took so much of this gross outturn as he considered to represent a fair rent, and this converted into money gave him the gross rental. He then determined the assessment independently by comparing the revenue proposed by the tahsildar with the old revenue and its incidence in relation to that of surrounding parganas. The sum thus obtained amounted to 74 per cent. of the total gross rental, and this was distributed among the various estates, according to the relative condition of each as found by inspection. It subsequently proved that the gross assessment was pitched far too high and large deductions were therefore made, though the soil rates were retained. Mr. Thornton used different systems in different parts of the district. Beginning in Thana Bhawan, he inspected the papers of the village, and from these obtained a fair assessment, the total being the gross revenue of the pargana. For determining rent rates he selected three typical villages as superior, average and inferior and then ascertained what kinds of crops were grown in each class of soil, and in what proportion. To the total area of each crop he applied the pargana money rent rate, and the average per acre was taken as the rent rate of that soil; though no explanation is afforded to show what these money rent rates were or how they were derived. He afterwards found it necessary to revise these assessments, apparently on the grounds of inequality, as he prepared a map showing the incidence of revenue per acre in each village. In revising Mr. Turner's work in pargana Rampur no rent rates were employed, and Mr. Thornton based

his conclusions on other grounds, though these are not definitely stated. In Deoband he found that the principal factor was the individuality of each class of cultivator rather than the nature of the soil, and consequently local circumstances were of greater moment than rent rates, which were discarded altogether. In both parganas Mr. Turner had greatly modified the previous demand, and further reductions in the assessment were made on revision. For the rest of the district Mr. Thornton had more materials at his disposal, and adopted a more elaborate procedure. Village rent-rolls were prepared showing the actual amount of cultivation, the area required for grazing and the proportion of the produce actually paid as rent. With the help of these he compiled average produce staples on the process of average returns of ordinary soils, and the proportion of this produce actually paid as rent was taken as the gross rental. A deduction of 20 per cent. from the latter gave the gross revenue; but the assessment thus obtained was modified in many cases in the light of inspection, while other considerations were admitted, such as the incidence in adjoining estates, the proposals of the tahsildar and the fiscal history of the village.

The revenue.

The revenue demand of the entire district as finally sanctioned amounted to Rs. 10,93,946, and though this represented a considerable increase on the preceding assessment, which amounted to Rs. 9,53,046, the enhancement was more apparent than real.* In most cases a substantial reduction had been effected, and the addition was due in a large measure to the resumption of revenue-free estates, which now yielded about Rs. 1,25,000. A considerable increase was also derived from the resettlement of the lapsed portions of the Landhaura estate. In most cases the question of proprietary right had remained undecided for twenty years, a condition of affairs which had occasioned great hardships, as the persons in possession and under engagements for the revenue had been unable to transfer the land or to borrow money on its security. As far as possible the old communities were now recorded as proprietors, though often, where villages had been abandoned, the settlement had to be made with persons of very recent occupation. A vast

* Appendix, table IX.

amount of work was entailed in the preparation of the records-of-rights for the whole district, now for the first time drawn up; the smallest subdivision of the land in each village was entered, with the name of the manager and the amount of land revenue due from it. Arrangements were made for the appointment of *patwaris* or village accountants, *chaukidars* or village watchmen, and the selection of *lambardars* or the representatives of the village communities in their engagements with Government. The settlement was sanctioned for a period of 20 years, and expired on the 1st of July 1857.

1859-62. The work of remeasurement and of the preparation of the village papers for the new settlement was begun in 1854 and concluded in 1858, after a considerable interruption caused by the Mutiny. The assessment was entrusted to Mr. Vans Agnew, with Mr. C. Grant as assistant, and the operations, which were begun in 1859, were completed in 1862. The most prominent features of this assessment were the substitution of a provincial survey for the old measurements by chain, and the reduction of the Government demand from two-thirds to one-half of the net assets. Operations were conducted under the manual known as the Saharanpur Instructions which, with various modifications, was employed throughout the North-Western Provinces. Mr. Vans Agnew began his work under great difficulties. The survey records were generally found to be accurate, but this was not the case with the village papers, since three per cent. of the landed property of the district had been confiscated for rebellion, while in 1858 fear of punishment, and in 1860 fear of famine, had driven thousands from their fields. There is nothing on record to show what system Mr. Vans Agnew adopted. He used a great variety of information, including estimates by the local officers; a calculation of the value of the average produce recorded in the year of measurement, in which the produce was taken from Mr. Thornton's tables and the value based on the average market prices for the last 20 years; rates deduced from money rents where such were found to prevail; the recorded rentals of the village papers, and rates on ploughs. The results were compiled in a tabular form, and the assessments determined therefrom. He omitted, however, to frame average

rent or revenue rates, so that there were no means to check inequalities in adjacent villages: nor indeed was there any machinery provided for testing the adequacy or otherwise of the settlement. The total revenue of the district amounted to Rs. 11,29,442, representing a moderate increase in all parganas except Gangoh and Nakur.*

This assessment was never sanctioned, for doubts soon arose as to the adequacy and equality of the settlement. A careful inspection of the district was made in 1864 by the commissioner and Sir William Muir, then senior member of the Board of Revenue, with the result that a complete revision of the assessment was ordered. This work lasted from 1864 to 1867, the Saharanpur tahsil being undertaken by Mr. H. D. Robertson, and the rest of the district by Mr. H. LeP. Wynne. Mr. C. A. Daniell was also deputed to conduct the revision in Deoband, but was transferred before any pargana had been completed. Mr. Wynne, finding that the soils had been imperfectly demarcated and that the statistics of irrigation were merely misleading, discarded soil rates, and instead adopted a system of circles in each pargana, framed topographically. These he arranged in order of merit, according to an elaborate calculation based on the proportion of cultivated to culturable area, of irrigated, manured and sandy soil to the cultivated area, and of the agricultural and total population to each hundred acres of cultivation. This system of valuation, however, was open to obvious objections, but in practice no reliance seems to have been placed on the results: the actual assessment was based on the ascertained cash rents, which yielded standard rates for each circle. He then proceeded to select an average village for the circle, graduating all the others above or below in order of merit, according to the results of personal inspection. For this average village he calculated the rental by applying the circle rate: new fallow was assessed at two-thirds and old fallow at one-third, when the area exceeded one-tenth of the land under cultivation. The rental for the remaining villages was determined in the same way, the rate being raised or lowered according to the position of the village on the list. The totals were corrected summarily when the

Revision of 1864-67.

* Appendix, table IX.

incidence appeared to disagree with the relative position of the village: but such adjustments, though numerous, were generally trifling. The demand, including cesses, was fixed at 55 per cent. of the gross rental. Mr. Robertson, on the other hand, while he framed topographical circles, adopted a widely different procedure in the Saharanpur tahsil. He accepted the soil classification as correct, and elicited soil rates for wet and dry land of the three classes, *rausli-dakar*, *misan* and *bhuda*, calculating them from the averages of the cash rents, an estimate of the average value of the normal outturn and the returns of the rent-rolls where these gave the value of the landlord's share commuted into money. It appears, however, that a rigid scale of rates often proved unworkable, and arbitrary alterations were made in many instances; while sometimes these rates were discarded altogether, their place being taken by an assumed all-round rate per assessable acre. Indeed there is no explanation as to the manner in which the rates were obtained in practice, especially when based on such notoriously unreliable data as estimates of produce and the *patwaris*' records of grain rents: the more so as Messrs. Wynne and Daniell expressly stated that not only did soil rates not exist but that there was no available material for framing them.

The revenue.

The total rental ascertained by these different systems was Rs. 22,76,155, and the net final revenue demand as assessed on the permanent *mahals* was Rs. 11,30,613. To this must be added the demand for the alluvial *mahals*, Rs. 57,114, making a total of Rs. 11,87,727, which represents an increase of Rs. 93,781 on Mr. Thornton's total.* In some cases the enhancement was made progressive, the final figure being reached in 1875. The settlement was sanctioned for a period of thirty years, to terminate on the 30th of June 1890. During its currency the revenue was collected with ease, and the district made greater progress than at any previous time. This has been ascribed to the moderation of the demand; for though Mr. Thornton's settlement, calculated on two-thirds of the assets, worked well, no great advance was made, transfers were extremely numerous and, in spite of the extension of cultivation and canals,

* Appendix, table IX.

there was no permanent rise in rents. With the advent of the new settlement matters improved rapidly, and a noticeable feature of the period, especially towards its close, was the extensive commutation of grain rents for payments in cash. When the term expired the revenue had undergone little change, the total for the permanent and alluvial *mahals* being Rs. 11,84,602. The decrease was due principally to the appropriation of land by Government, which in the last twenty years alone effected a reduction of Rs. 6,301. On the other hand the resumption of grants and revenue-free tenures accounted for a considerable increase, these being regularly settled by the district staff as they fell in.

Saharanpur was again declared under settlement in November 1887, and Mr. L. A. S. Porter was appointed settlement officer, Mr. F. W. Brownrigg being his assistant from November 1888. The work was completed by August 1890, and the new demand was collected from the 1st of July in the same year. The settlement was carried out under the same rules as that of Bulandshahr, on the basis of the existing maps and records after correction and verification; but the preparation of the maps, begun in 1885, was not performed satisfactorily, so that when regular settlement operations started, the great majority were found to be useless, and a thorough correction, amounting practically to a new survey, had to be undertaken for the entire district. This necessarily delayed the compilation of the rent-rolls, so that the inspection of the Nakur tahsil had to be made without maps and verified statistics. Similar disadvantages had to be encountered in the two following cold weathers, since the appointment of an assistant settlement officer had not been foreseen. Under the rules prescribed Mr. Porter had to frame assessment circles and then to work out standard rates for each class of soil, these rates to correspond as closely as possible to the recorded rents. No difficulty was experienced in forming topographical circles in Nakur; but the satisfactory determination of soil rates proved impossible, partly because cash rents did not seem to bear any definite relation to the comparative value of the land, and partly because the rent-rolls had not been verified. In actual practice it was found that the rents of this tahsil were

Settlement of 1887-90.

fixed either in the lump on holdings or by all-round rents applied on all the lands in an estate. The only class of land for which a general rate could be deduced from the recorded rents was that irrigated by canals, and consequently it became necessary to divide the canal circles into irrigated and unirrigated land with a separate rate for each, while the remainder had an all-round rate for land of all classes whether wet or dry. In the remaining tahsils the assessment circles were formed according to the Gorakhpur and Basti settlement rules, the basis of the classification being the recorded rents as accepted or corrected by the settlement officer; fraudulent, excessive or inadequate rents being rejected, and the villages classified on their merits without reference to the papers. No fresh classification of the soils was attempted, that of the former settlement being found satisfactory; but on this occasion four classes only were employed, *misan* being omitted altogether. In every tahsil great difficulty was experienced in selecting standard rates for soils, since these were never recognized locally; and consequently the rates adopted, though elicited with the greatest care, were to a certain extent arbitrary. They were tested not merely by comparison with the total rental of the circle, but by applying them to individual holdings and villages; and probably they were as nearly correct as circumstances would permit, although in some parganas they were vitiated by the inclusion of *zabti* rents paid for special crops. In the cash-rented area the difference between the recorded and standard rental was so small as to be insignificant: but a further difficulty was experienced in the still large assumption area, which amounted to 56 per cent. of the whole district. This consisted of proprietary cultivation and grain-rented lands. The former were found as a rule to be as average quality throughout the district; but with regard to the latter, although there was no general tendency to confine rents in kind to inferior holdings, it appeared that as a rule such grain-rented land possessed fewer advantages in the matter of irrigation and otherwise than land held on cash rate, the incidence of the standard rental being considerably lower in most parts of the district. Generally speaking the cash rents were fairly disclosed, and the real difficulty lay in the correction of the rent-rolls for

the remaining area. The Saharanpur rules differed from those of Bulandshahr in that the concession made on the proprietary cultivation was 15 instead of 25 per cent. and was only given where special claims for consideration existed. Generally speaking, however, relief was afforded to cultivating communities in another way by taking less than 50 per cent. of the revenue.

The revenue.

The parganas of Nagal, Deoband, Manglaur and Haraura were assessed by Mr. Brownrigg, and the remainder of the district by Mr. Porter. The assets according to the standard rental were Rs. 30,83,111, while the corrected rental was Rs. 30,41,692. The latter included Rs. 9,557 as *sayar* or miscellaneous receipts chiefly from thatching grass, timber and waternuts, the income from mango and other fruit trees being generally left out of account. The revenue was fixed at Rs. 14,32,427, representing 47·09 per cent. of the corrected rental, the lowest proportion being 46·03 in pargana Roorkee and the highest 48·51 per cent. in Haraura. This involved an increase of 26·9 per cent. on the demand of the preceding settlement, and of 23·3 per cent. on the incidence on cultivation, the latter rising from Re. 1-8-3 to Re. 1-13-11 per acre. This increase differed greatly in various portions of the district being over 35 per cent. in the parganas of Deoband, Roorkee and Sultanpur, and under 15 per cent. in Faizabad, Muzaffarabad and Gangoh. In many instances of large enhancement the new revenue was introduced gradually; this affected 243 *mahals* in which the remission for the first five years amounted to Rs. 46,285, and for the second five years to Rs. 29,914 The cost of the settlement averaged about Rs. 150 per square mile, and was nearly recovered in the first year in which the new assessments were in force. The settlement was sanctioned for a period of 30 years, to terminate on the 30th of June 1920. Since its introduction the revenue has been collected without difficulty, except in the case of one or two villages in precarious tracts which have deteriorated on account of bad management and unfavourable seasons. The demand was considered moderate from the first, and is now distinctly light by reason of the development of agriculture and the rise in wages, prices and rents.

Subsequent increase.

The total revenue has since been increased to a considerable extent by the assessment of the grant villages which were still in existence in 1890. These grants have all now lapsed under the terms of the original contracts and have been assessed to revenue in the ordinary manner by the district officers, the last of them terminating in 1906. In that year the demand for the entire district was Rs. 15,43,970, giving an incidence of Re. 1-12-0 per acre of cultivation.*

Alluvial *mahals.*

This total also includes the revenue of the alluvial mahals, which at the time of the last settlement amounted to Rs. 56,587. These are to be found in every pargana of the district, though the greater number lie on the banks of the Ganges and Jumna, or along the Banganga and Budhi Jumna. At the preceding settlement some tracts were declared liable to fluvial action and were formed into separate *mahals:* but they were limited in number, and by no means comprised all the alluvial land in the district. In 1876 steps were taken to comply with the general rules, and many new *mahals* were constituted. At the last settlement there were 291 such *mahals* and 72 more were created, while six were struck off the list, bringing the total to 357. Most of the new *mahals* lay in pargana Bhagwanpur, where great damage is done by the Solani to the villages on its banks. Since that time there have been periodical inspections and revisions. The dates vary for different parganas, the last assessment taking place in 1903 for Rampur, Nagal, Saharanpur, Haraura and Manglaur, in 1904 for Faizabad and Sarsawa, in 1905 for Muzaffarabad and Sultanpur, in 1906 for Jwalapur and Nakur, and in 1907 for Roorkee, Bhagwanpur and Gangoh. At the present time the total number of these alluvial *mahals* is 449, and the revenue demand according to the latest returns is Rs. 8,932 on 38 *mahals* in tahsil Deoband, Rs. 19,738 on 148 *mahals* in Saharanpur, Rs. 22,567 on 196 *mahals* in Roorkee and Rs. 34,196 on 67 *mahals* in Nakur. Further details will be found in the pargana articles.

Cesses.

In addition to the ordinary land revenue the usual cesses are collected. These now comprise only the ten per cent. local rate, which dates from 1871, when the various dues levied in

* Appendix, table X.

former days were amalgamated and received the sanction of law. Such were the road cess, imposed from the date of the first regular settlement, the school cess of one per cent. introduced in 1861, the dak cess and others of a like nature. In 1878 a special rate of two per cent. was added, and remained in force till 1905, and the following year witnessed the abolition of the *patwari* rate, which had been collected in various forms for a long period. The demand on account of cesses in 1906-07 was Rs. 1,57,019, and is calculated, as usual, on the gross revenue.*

Police stations.

In the early days of British rule there was no regular police force in existence, and the duty of maintaining watch and ward was performed very inefficiently by the village watchmen, who were the servants of the landholders, or by the police entertained, or supposed to be entertained, by the tahsildars. The latter were but farmers of the revenue, and consequently it was but natural that they should neglect their police duties and be unwilling to expend sufficient money on the upkeep of an adequate staff. The experiment soon proved a failure, and in 1807 was abandoned, the control of the police being handed over to the magistrate. A force was then raised and was located in a small number of stations, mainly at the tahsil headquarters. This arrangement was somewhat modified in 1844, when the circles were made to correspond as far as possible with the revenue subdivisions, the stations then being at Saharanpur, Muzaffarabad, Roorkee, Jwalapur, Deoband, Rampur, Nakur and Gangoh. After the Mutiny a considerable change was effected, the area of the circles being greatly reduced, with the resultant increase in the number of *thanas*, while several small outposts were established in the more remote localities. The new stations comprised those at Fatehpur, Behat, Chilkana, Manglaur, Sarsawa, Sultanpur Kunari, Nagal, Mohand, Badgaon, Bhagwanpur, Nanauta, Mirzapur, Bassi and Dausni. In addition to these, there were outposts at Hardwar, Kankhal, Gagalheri, Mandaoli, Phandpuri and Tanda Man Singh. The number of stations remained unchanged, but the outposts were gradually abolished, with the exception of those at Hardwar and Kankhal, though

* Appendix, Table X.

a new one was subsequently established at Biharigarh in place of that at Tanda Man Singh, two miles to the north on the Mussooree road. At present, therefore, the district is divided into 22 police circles, having an average area of 101 square miles; but under the reallocation scheme of 1906 it is proposed to reduce the total to 16, which will give an average of 139 square miles to each circle. This is to be effected by abolishing the stations at Mirzapur, Muzaffarabad, Mohand, Sarsawa, Dausni, Fatehpur, Bassi, Nanauta and Chilkana. The Mirzapur circle will be amalgamated with that of Behat, Fatehpur with Bhagwanpur, Nanauta with Badgaon, Bassi with Gangoh and Sarsawa with Chilkana, while Mohand will he combined to form a new circle with headquarters at Tanda Man Singh. In the case of Dausni the circle will be united with that of Sultanpur, but the station for the combined area will be located at Laksar, owing to the more convenient situation of the latter place on the line of rail. A new station has already been established at Mayapur, but the outpost at Biharigarh has been abolished, as the route has lost much of its old importance; while a new outpost is to be opened at Ganeshpur, dependent on the Roorkee station. The new scheme will not obviate the disadvantages that were formerly experienced with regard to the distribution of the circles, since no tahsil is self-contained in this respect. Overlapping occurs in every sub-division, as will be seen by referring to the police arrangements of each tahsil in the several articles.

Police force.

The police force is under the control of a superintendent, whose staff usually comprises an assistant superintendent, a reserve inspector, two circle inspectors and a prosecuting inspector. The distribution of the force in 1907 is shown in the appendix.* Under the revised scheme it will comprise one sub-inspector, 19 head constables and 135 men of the armed branch, while in the civil and reserve police there will be 44 sub-inspectors, 64 head constables and 593 men. The latter includes the municipal police at Hardwar who now belong to the provincial force, as well as the Roorkee cantonment police. At Saharanpur, Deoband and Roorkee the old municipal police, numbering 213 men of all grades, were abolished in 1907 and

* Appendix, table XVII.

replaced by 20 head constables and 183 men. Further there are 120 *chaukidars* employed in the Act XX towns, 1,692 village *chaukidars* and 58 road *chaukidars,* who act as patrols on the provincial highways and the metalled roads.

Statements given in the appendix show the work of the police and the returns of crime for the last few years.* Generally speaking, the criminal work of the district is distinctly heavy, especially in respect of minor offences. The most prevalent types of crime are cattle-theft and burglary. The former occurs throughout the district, but is most common in the circles bordering on the Jumna and Ganges. It is a regular occupation of the Gujars and Rangars, who frequently operate in collusion with their caste-fellows in the adjoining tracts of the Punjab and especially in the semi-independent state of Chachrauli in the Umballa district, which affords a safe haven of refuge for stolen cattle. Burglary is more widespread and is practised by every caste, and the same may be said of petty theft, the most usual form of crime in every agricultural district. Dacoity is not prevalent, and the few cases investigated every year are generally of a technical nature: organised gangs seldom trouble the district, though in both 1906 and 1907 cases of professional dacoity were reported and the criminals were duly brought to justice. Counterfeit coining is very rare and note forgery is unknown. Cases under the Excise and Arms Acts are not frequent, but of late there have been many seizures of illicit cocaine, which is said to come from Dehli and is consumed to a rapidly-increasing extent. As regards special forms of crime mention may be made of robbery by poisoning, which occurs from time to time at Hardwar and on the roads leading to that place. The culprits are either real or disguised mendicants of some religious order, and may be regarded as professional poisoners. One recent case appears to be due to Baurias of the Muzaffarnagar district, dangerous criminals who wander great distances from their colony in the Bidauli circle close to the southern borders of the Nakur tahsil. In all these cases *dhatura* has been the poison invariably employed. A few years ago Hardwar was also notorious as a centre for kidnapping and disposing of hill women, but this class of crime has

Crime.

*Appendix, tables VII and VIII.

disappeared since the capture of several members and the dispersal of the rest of a large gang. The criminal tribes who are found in Saharanpur include the Tagus or Bhats from Karnal, who are to be found in a few villages in the south-east corner adjoining the borders of Muzaffarnagar. They are pilferers and cheats who disguise themselves and frequent fairs, markets and railway stations in Meerut, Umballa and elsewhere, though they commit no crime in this district. Between 1899 and 1906 the country was exploited by a criminal tribe of Sansia Jats from the Punjab; but these people are distinct from the ordinary Sansias, who reside in every circle, though they constantly shift their habitations, moving from place to place in this and the adjacent districts to the north and south. The latter as a rule do little beyond petty burglary and theft, but in times of scarcity they become more active and have taken to looting carts on the highways. Efforts have been made to reclaim them by the missionaries, and a certain number profess Christianity, mainly in the vicinity of Roorkee. Of much the same character are the vagrant Bhatras from Sialkot in the Punjab. They visit this district at intervals and are always present during the spring bathing fairs at Hardwar, where they assume the garb of Faqirs. They are addicted to theft and cheating, but are not considered dangerous criminals.

Infanticide.

At one time female infanticide was extremely prevalent among the Rajputs and other tribes of this district. As early as 1853 an inquiry was made into its existence and extent, but no action was taken, on the report of the tahsildars that the crime had died out. In 1862, however, the rules which had proved so successful in Agra and Mainpuri were introduced with some effect in 171 villages inhabited by Rajputs, Gujars and Jats of the Kalikanthawala subdivision; and the investigation that ensued showed conclusively that the Jats were not so universally guilty as had been supposed. These measures were followed by a regular census of the suspected clans, with the result that the provisions of Act VIII of 1870 were put in force against the Pundirs in 64 villages, other Rajputs in 17, Gujars in 136, Jats in 18, Tagas in six and Kolis in one village. In 1873 the number of villages was raised to 177, with a population of 51,838 souls, of whom

only 18,838 were females: there were 11,396 boys and 5,418 girls, showing clearly the need that then existed for active interference. The cost of the special police was defrayed by a cess which yielded in that year Rs. 5,151. These stringent measures soon took effect, and in a short time it became possible to exempt many of the villages: and this process went on steadily till, in 1901, there were only 23 villages on the register, paying a cess of Rs. 566. Five years later the operations of the Act had been entirely withdrawn, and now there is little suspicion of infanticide, though doubtless the castes formerly addicted to the crime are in the habit of paying less attention to their daughters than to their male children.

Jail. The district jail is located in the old fort at Saharanpur, which has been utilised for the purpose from an early date. The building has been altered and repaired from time to time, and now ranks as a second-class jail. It is under the superintendence of the civil surgeon, and the manufactures carried on within its walls are of the usual description, comprising weaving in various forms, the production of grass matting and carpentering. The average number of inmates in 1850 was 406, dropping to 131 in 1860, but rising to 216 in 1870, while in 1900 it was 332.

Excise. When the district first came under British administration, *abkari*, or excise, formed merely a portion of the miscellaneous *sayar* income that was merged in the general land revenue. With the first summary settlement excise was definitely separated from the land revenue demand and a separate contract was made, either for single parganas or groups of parganas, for the right to manufacture and sell country spirit, as well as *tari*, hemp drugs and opium. This system remained in force till 1862, when a great and far-reaching change was introduced by the abolition of private manufacture and the establishment of Government distilleries at Saharanpur and Roorkee for the supply of the entire district. At first it was difficult to prevent smuggling, and the revenue fell to some extent; but soon the advantages of the change became apparent in the increased receipts, and especially in the growing amounts realised by the annual auction of shops. In 1869 these auctions

were stopped and a fixed rate of Rs. 5 was levied on each shop; but this proved a failure, and a varying rate was substituted, to be determined in each case by the collector, and not long afterwards the old plan of auctions was again introduced. No further change of importance occurred till 1880, when the modified distillery system was applied to the Saharanpur tahsil, the whole area being leased to a single contractor in order to break up a combination of the Kalwars: but this lasted for two years only. In 1891 the uniform still-head duty hitherto in force was abolished and the duty now varied according to the strength of the liquor issued. This practically doubled the amount realised, but at the same time a heavy drop occurred in the income from licenses, owing to the apprehensions of the contractors. The unpopularity of the alteration lasted for a long time, as it involved a considerable reduction of the profits; but the total receipts rose very rapidly, the improvement in the income being the more welcome as it was accompanied by a decrease in the amount of alcohol consumed. In 1895 the Saharanpur distillery was largely extended, and that at Roorkee was closed in the following year, thus simplifying the excise administration, since the whole district was now served from a single distillery. Save for the application to the Roorkee tahsil of the modified distillery system as a temporary measure in 1898, the administration continued on the same lines till 1909, when the district was brought under the contract system, the entire area, together with Bijnor and Muzaffarnagar, being leased to one contractor, who has to manufacture his liquor at a specified distillery within the area, in this case located at Saharanpur, where the Government premises are leased for Rs. 1,000 annually, while a bonded warehouse is maintained at Roorkee.

Revenue.

The income from spirits for each year since 1890-91 will be found in the appendix.* From 1863 to 1872 the annual average was Rs. 8,258 on account of license-fees and Rs. 12,048 for still-head duty. Since that time there has been a very large increase. For the ten years ending in 1887 the averages were Rs. 26,700 for licenses and Rs. 26,900 for duty; from 1888 to 1897 they were Rs. 44,000 and Rs. 34,050; and from 1898 to 1907 they were

*Appendix, Table XI.

respectively Rs. 80,100 and Rs. 37,445 per annum. Fluctuations necessarily occur, according to the nature of the season, the best year being 1904-05 and the worst 1896-97 since the introduction of the new system of duties in 1891. The rise in the income has been out of all proportion to the increase in consumption, though the latter has perhaps been more marked since the advent of plague, as spirits are commonly regarded as a prophylactic. For the ten years ending in 1897 the average amount of liquor consumed was 32,750 gallons annually, while for the ensuing decade it was 37,500 gallons. This latter figure, however, is probably above the actual, as it includes all liquor exported to other districts. The average incidence per 10,000 of population is Rs. 1,043, which is a fairly high but not remarkable proportion. A small but increasing amount is derived from licenses for the sale of imported liquor, consumed principally by the European inhabitants, the annual average for the last ten years being Rs. 1,578. The fermented liquors, *tari* and *sendhi*, obtained from the sap of palm trees, are in little favour, owing to the absence of trees: the *tar* palm is rare, and the *khajur* is confined to a few tracts. The right to collect and sell the liquor is farmed, the receipts under this head averaging Rs. 122 annually.

Hemp drugs.

The contract system has always been in force with regard to the sale of hemp drugs, the only modification of any importance being that introduced in 1901, whereby the lease of the entire district was given for a period of three years. The consumption of these drugs is very large, especially among the high-caste element of the population, but latterly the receipts have diminished since the imposition of a higher rate of duty on *charas* in 1899. From 1863 to 1872 the average income from drugs was Rs. 4,540 annually, while from 1878 to 1887 it had risen to Rs. 8,265, and in the next decade to Rs. 14,470. For the following ten years the figure was no less than Rs. 28,982, though this was swollen by abnormal sales in the first portion of the period.* These drugs take the form either of *bhang*, the dried leaves of the wild hemp, which grows freely in the district and especially in the submontane tract, the right to collect and store it being vested in the contractor; or else of *charas*, which is imported

* Appendix, table XI.

Rs. 500 up to 1903-04. In the appendix will be found tables showing the number of assessees and the amount realised, both for the whole district and also for each tahsil as well as for Saharanpur city, in each year since 1890-91.* The average receipts for the ten years prior to 1903-04 were Rs. 71,200, while in the ensuing three years the total dropped to Rs. 58,700. The number of persons paying at the higher rate of five pies has, however, risen steadily, the average amount of tax for the two periods being Rs. 30,115 and Rs. 31,768 respectively. The latter was paid by 308 persons, whose average income was Rs. 3,967. The number of those paying tax at four pies dropped from an average of 1,944 to 687, and the amount paid fell from Rs. 31,723 to Rs. 18,695. The relief thus afforded was very considerable, as formerly the average income of this class was Rs. 783, whereas now it is Rs. 1,306. By far the largest contribution comes from Saharanpur city, and the bulk of the remainder from the Roorkee and Deoband tahsils. There are but few rich persons in the district, other than the large *zamindars,* and only Rs. 5,000 is paid on incomes of Rs. 10,000 a year and upwards. The assessees are principally pleaders, merchants and shopkeepers.

Post-office.

The history of the post-office begins with the institution, soon after the conquest, of an imperial mail line from Agra to Meerut and Saharanpur, this being subsequently extended to Mussooree and Umballa. In 1838 the North-Western Provinces postal circle was formed, a dak cess was levied and a force of runners entertained for the carriage of mails between Saharanpur and the outlying police stations, the transmission of official correspondence having hitherto been conducted through the agency of the police. There was as yet no means for sending private letters to the interior, and it was not till 1845 that a concession was made in this direction, each packet being charged for at the rate of half an anna. The entire management of the district post rested with the local officials till 1864, when the postal system was further developed and the Post Office Act of 1866 extended the operations of the imperial department, the intention being to take over all district offices. This step

* Appendix, tables XIII and XIV.

was, however, effected but gradually and the district dák was not wholly abolished till 1906, when the few remaining offices, whose existence had not been hitherto deemed necessary under the commercial principles of the post-office, were finally absorbed. At the present time the number of post-offices in the district is 41, as compared with 24 in 1872. Of the latter twelve were under imperial and twelve under district management; but now all are imperial, the last district offices, at Mirzapur, Badgaon and Sultanpur, having been taken over in 1905 and the following year. A list of all the offices, by parganas and tahsils, will be found in the appendix. The head-office is at Saharanpur, and from this the mails are despatched to the 18 sub-offices and thence are distributed to the 22 branch-offices. Before the advent of the railway the bags were carried by runners, or else by cart in the case of the Mussooree route; but the staff of runners has been greatly reduced, and the service much accelerated by the railways, which now reach almost all the important places in the district. The increase in the volume of the work is strikingly exemplified by a comparison of the returns of different years. In 1861 the number of letters, packets and newspapers received was 129,661; in 1871 it was 298,087; while in 1901 it was no less than 2,014,376, more than half consisting of post-cards. The operations of the post-office in other directions have rapidly extended, especially in the matter of the savings-bank and in money-order transactions, the facilities for paying rent and revenue through this agency being appreciated in a marked and ever-increasing degree.

Telegraph.

The only Government telegraph office is at Roorkee, but there is a number of combined post and telegraph offices—at Saharanpur head-office, Saharanpur city, Deoband, Manglaur, Hardwar, Jwalapur and Kankhal. In addition to these, there are railway offices at the stations on the various lines, and departmental lines of telegraph are maintained along the Ganges and Eastern Jumna canals.

Municipalities.

Municipal affairs occupy an important place in the administration of the district, for in addition to Saharanpur there are the three municipalities of Roorkee, Deoband and Hardwar Union. The Saharanpur municipality first came into existence

under Act XXVI of 1850 on the 21st of December 1867; but before that time some form of local administration seems to have existed, the earliest measure being the establishment of town police under Regulation XXII of 1816 and the imposition of a tax on houses assessed by a local committee, in order to provide for the upkeep of the force. Deoband followed on the 27th of January 1868, and on the 25th of May in the same year the Hardwar Union municipality was constituted, this comprising the three towns of Hardwar, Jwalapur and Kankhal. Roorkee did not attain the status of a municipality until the 24th of February 1879. Some account of the administrative arrangements in each place will be found in the various articles, while the details of income and expenditure under the main heads for each year since 1891 are shown in tabular form in the appendix.*

Act XX towns.

In addition to the municipalities, there is in the district a large number of towns to which the provisions of Act XX of 1856 have been applied. The measure was first introduced on the 25th of May 1860 in the towns of Roorkee, Deoband, Jwalapur and Kankhal, which afterwards became municipalities, and also in Rampur, Nanauta, Manglaur, Bhagwanpur, Nakur, Ambahta, Gangoh, Sarsawa, Jabarhera, Lakhnauti, Sultanpur and Chilkana. To this list Titron was added on the 1st of July 1868, and in 1870 Libarheri was united with Manglaur to form a single area, while Sultanpur and Chilkana were similarly combined. The only subsequent alterations were the extension of Lakhnauti in 1871, so as to embrace the adjoining village of Sankraur, and the removal of the Act from Libarheri in 1908. The separate areas now administered under the Act have thus been reduced to twelve in number, and in each case the income obtained from the usual house-tax is applied to the maintenance of a local police force, the upkeep of a conservancy staff and to minor works of public utility: details of the receipts and expenditure will be found in the several articles. The provisions of the Village Sanitation Act, 1892, have been applied to these towns, while section 34 of the Police Act, V of 1861, is in force at Manglaur, Nakur and Sultanpur-Chilkana.

* Appendix, table XVI.

The district board in its present form is of fairly recent origin, though it has come into being through a long process of evolution. The administration of local funds and affairs began with the institution of a dak cess in 1838 for the requirements of the district post, and this was followed by the institution in 1840 of a road cess of one per cent. on the revenue, in order to relieve the landowners from their former responsibility for the upkeep of the roads and ferries. This cess was administered by a local committee, and subsequently other committees were formed for the management of dispensaries and educational institutions. These were amalgamated into a district committee in 1871, when the cesses were consolidated, and no further change was made till the constitution of the district board under Act XIV of 1883. A further modification was effected in 1906, when the board was invested with more extended powers, and the old local or tahsil boards were abolished, the members being elected direct from each tahsil. The board now consists of 17 members, including the magistrate as chairman, the four subdivisional officers and three elected from each tahsil. Its functions are of the usual varied description, the chief being the management and upkeep of local roads, buildings, dispensaries and cattle-pounds, as well as the control of schools and education. The annual income and expenditure under the main heads since 1890-91 will be found in the appendix. * District Board.

For many years after the introduction of British rule the only schools in the district were the small indigenous *maktabs* and *pathshalas*, which received no official support and maintained a precarious existence, their scope being limited to the rudiments of reading, writing and arithmetic, or else to elementary instruction in the Hindu and Musalman scriptures. The first school to be started on western lines was that of the American Presbyterian Mission at Saharanpur in 1837. No steps were taken by Government towards the promotion of education till 1845, when an inquiry was made into the existing condition of affairs. It was found that there were then 133 Persian, 47 Hindi and 43 Sanskrit schools, in addition to the Mission institution, 53 of the whole number being at Saharanpur Education.

* Appendix, Table XV.

itself. The scholars aggregated 2,756, a high figure as compared with those of other districts; but it was reported that there was no general demand for education, at all events of an advanced type, the more promising pupils as a rule going to Dehli. The foundation of the Roorkee college in 1847 was a special measure, and no provision was made for vernacular education till 1851, when a tahsili school was started at Roorkee in September, followed in the ensuing month by one at Deoband. In 1852 that at Saharanpur was opened, and next came Manglaur in March 1853 and those of Gangoh, Ambahta and Jwalapur in December 1854; while in 1856 an anglo-vernacular school was founded by the Society for the Propagation of the Gospel at Roorkee. In 1856-57, in addition to the last-mentioned institution and that at Saharanpur, there were seven tahsili and 439 indigenous schools with an aggregate attendance of 5,836 pupils, showing an immense improvement in the course of ten years. In 1858-59, the Roorkee vernacular school dropped out of existence; but the most important change that took place about that time was the introduction in 1860-61 of the *halqabandi* system and the maintenance of village schools from the proceeds of a one per cent. cess. The experiment was first made in the Saharanpur tahsil in July 1860, then in Roorkee during the following January, and in July 1861 in the remainder of the district. The number of schools was increased gradually, and in 1863 Government opened an anglo-vernacular school at Saharanpur, while the same year witnessed a fresh departure in the establishment of girls' schools, the first to be started being at Saharanpur and Ambahta. By 1866-67 there were 349 schools in the district, including 101 *halqabandi* and 216 indigenous, with a total of 7,269 scholars, of whom 251 were girls located in 18 schools. Among the remainder was a so-called subscription vernacular school at Deoband, which received a grant-in-aid from Government and was founded in 1866. The anglo-vernacular school at Saharanpur was converted into an inferior *zila* school in April 1867, and in the same year a subscription school was started at the district headquarters, though this expired in 1872. During the latter year a new pargana school was opened at Rampur, those at Nakur and Titron being subsequently added to the list, so as to make ten

middle vernacular schools as at the present time. By 1876-77 the total number of schools was 443 and of scholars 7,789: female education, however, has not progressed, since the 13 schools now contained but 240 pupils. There were then 126 *halqabandi*, 278 indigenous and nine municipal schools, the last having first come into existence in 1872; while the remainder comprised the secondary institutions and the numerous mission schools at Saharanpur and Roorkee. The rapid progress hitherto achieved was not maintained during the next two decades, chiefly owing to financial causes. On its reconstitution in 1886 the district board took over the educational duties of the old committee, but no real innovation took place till 1896-97, when the system of assisting indigenous schools with grants-in-aid was introduced. In that year there were 13 secondary and 143 primary schools maintained wholly or in part from public funds, and the number of scholars was 5,639, including 286 girls; but unfortunately it is not possible to ascertain the total number of pupils under instruction, owing to the omission of the indigenous and unaided schools from the returns. The last ten years have been a time of very rapid improvement, as will be seen by a reference to the appendix, where a statement of schools and scholars in each year, and a complete list of the educational establishments in the district for 1906-07 is shown.* Besides the high school at Saharanpur, there are ten middle schools, located at each of the tahsil headquarters and at Manglaur, Jwalapur, Rampur, Titron, Ambahta and Gangoh; 32 upper primary and 78 lower primary schools, as well as four girls' schools, all maintained by the district board. The same authority gives grants-in-aid to 61 schools for boys and four for girls, and the total number of pupils in the institutions under its management or control is 5,942. The municipalities also maintain or support a number of schools, giving money grants to the mission schools and also to some of the Sanskrit *pathshalas* at Hardwar and Kankhal, as well as to the girls' schools at Saharanpur and Roorkee instituted by the Arya Samaj. There is still a large number of unaided indigenous schools, aggregating 140 in all but, though some of them are fairly flourishing, the great majority are of an ephemeral nature

* Appendix, table XVIII, *et seq.*

and can boast of but an insignificant attendance. Mention will be made of particular schools, such as that of Deoband, in the articles on the places concerned.

Thomason College.

In connection with education some account is necessary of the Thomason College at Roorkee. This celebrated institution owed its origin to the want felt, during the construction of the great canals and roads, of some systematic training for civil engineers in this country. To this was added the professional skill required by the demands of the surveys then in progress and the road and ferry fund committees which at that date represented the modern district boards. The well-educated European needed instruction in the native languages, especially in the vernacular terms of science and also in the peculiarities of materials and construction in this country, while the uneducated subordinate staff needed scientific instruction in order to develop their energy and usefulness. The efforts made at first to remedy these deficiencies by means of existing institutions had resulted only in failure. In January 1845 Lieutenant Baird Smith undertook to conduct an engineering class for native youths at Saharanpur, while at the same time masters were specially appointed to the colleges at Agra and Dehli to afford instruction in architectural drawing and surveying. A further great impetus to scientific study was given towards the end of that year by the establishment of the grade of sub-assistant executive engineer, with the object of creating a superior class of subordinate officials in the Public Works department. The determination of Lord Hardinge in 1847 to commence the Ganges canal rendered the problem of securing an adequate number of qualified men even more acute, and this gave rise to the Roorkee college. The situation was eminently suitable, owing to the presence of the large workshop, a model room and library, and the extensive structures in course of formation for the headworks of the canal, together with the necessary scientific appliances enabling pupils to work out in a practical manner the problems submitted to them in their daily course of study. The scheme propounded by Mr. Thomason, the Lieutenant-Governor, obtained the hearty support of the Government of India, and on the 19th of October 1847 Lieutenant R. Maclagan was appointed

principal, the first pupils being enrolled in the following January. Work was at first carried on in tents, but progress was delayed by the outbreak of war in the Punjab, the principal, headmaster and military students having to take the field for two months. The result of the war, however, was that a vast amount of territory was taken over, for which roads, canals and other large undertakings were a vital necessity ; and consequently it proved imperative to make large additions to the college, and to increase the numbers of military and native students. Mr. Thomason's revised scheme provided for the enlargement of the buildings and establishment, the erection of an observatory, a printing press, a museum of economic geology and a depôt for mathematical and scientific instruments, together with a workshop for their manufacture and repair. He also proposed to double the number of pupils, to improve the village schools in the neighbourhood so as to become feeders for the native department, and to admit officers both of the Queen's and the Company's army to study at the college. These proposals were sanctioned generally, and the college buildings were completed in 1856 at an estimated cost of Rs. 1,56,217, the institution receiving in 1854 its name of the "Thomason College of Civil Engineering at Roorkee."

Subsequent development.

The formation of a civil department of Public Works in 1855 led to the appointment in the following year of a committee to inquire into the condition of the college and to prepare a scheme for its extension. The project was delayed by the troubles of 1857, but subsequently the organisation of the college was remodelled in the following manner. The number of students in the senior department was fixed at 16. In the first department there was an English class of ten non-stipendiary students and a native class of equal size for paid students. In the second department there were 30 military and 30 native stipendiary students; and in third or vernacular department there were 50 paid students. The staff was increased by the addition of professors of surveying and of practical chemistry and photography; the press was reorganised and enlarged ; and the grounds were properly laid out and improved. In 1860 Colonel Maclagan was succeeded by Captain Williams, and the latter was followed in 1863 by Major Medley, who held charge

till 1870. During his tenure further additions were made, the course of instruction was prolonged and the number of students rose to 230. In 1871 Major Lang took his place and continued as principal till 1878. The chief event of his administration was the change inaugurated in 1875, whereby the stipends hitherto paid to all students were restricted and the number of guaranteed appointments to the public service was limited. The students, however, as yet paid nothing for their education, a condition of affairs which lasted till 1896. The establishment of the college at Coopers Hill naturally had a great effect on Roorkee, the chief result being a material reduction in the engineer class, which comprised the senior and first departments. The status of the college was defined afresh in 1882, when the entire financial responsibility was thrown on the Local Government; and it was distinctly laid down for the first time that Coopers Hill was to be the source from which European engineers for India were to be recruited, so that the duties of Roorkee were practically limited to the supply of engineers for the provincial services and to the training of the native military survey class, which was started for men of the Corps of Guides in 1873 and had been thrown open to the native army as a whole in 1881. In 1888 a British military survey class was instituted, the training being on very similar lines. In 1891 Colonel Brandreth, who had held charge since 1878, retired and was succeeded by Colonel Brown, V.C., but the latter remained only for a year and his place was taken by Major Clibborn. The college underwent a fresh reorganisation in 1896, from which date all students, except soldiers, paid fees for their education, the scope of the institution being extended so as to include industrial and technical education generally. It was then transferred to the Educational department and affiliated to the Allahabad University, while a committee of management was appointed under the presidency of the chief engineer to the Local Government. Many new classes were formed, the staff was increased, and in 1901 new technical workshops and laboratories were erected. To these were added several subsidiary buildings in 1903, and further additions have since been made, especially in 1907, when an electric installation was introduced, the workshops

were doubled, new class-rooms and barracks were built, a new water supply was inaugurated and new laboratories were sanctioned at a cost of Rs. 94,000.

Present scope. The college has been under the control of Major E. H. deV. Atkinson, R.E., since 1901 and has a large staff, comprising a military assistant principal, professors of mathematics and physical science, of experimental science, and of drawing and surveying, and many instructors and demonstrators in various branches of applied science. The students are apportioned among a number of classes, of which the first is the civil and electrical engineer class, reserved for statutory natives of India. Next comes the upper subordinate class, of which the first grade consists of British non-commissioned officers, the second of Europeans and Eurasians and the third of natives. Then follow the lower subordinate class, in which the numbers are limited approximately to the demand for sub-overseers; the technical class, for natives; the mechanical apprentice class, for statutory natives; the industrial apprentice class, for natives of the United Provinces; the automobile driver class; and the British and Indian military survey classes. The total number of students in 1906 was 496, of whom 414 were natives; the average for that and the four preceding years being 419. The subsidiary departments of the college include a library of some 23,000 volumes; the department of lithography and applied science, which does work for the general public; the book depôt, which receives and sells the various publications of the college press; and a registration department for the supply of engineers, draftsmen, mechanics and artizans. Connected with the college are a museum and model room, a meteorological office, waterworks, stores, a dairy, a mineral-water factory, a dispensary and the sports and athletic clubs.

Literacy. The progress of education in the district is to some extent illustrated by the returns of literacy, or ability to read and write, compiled at each successive census since 1872. In that year the recorded number of literate males was 6,211, or only 1·28 per cent. of the total male population, while not a single female was shown as literate. These figures were considered at the time to be inaccurate, as the total was less than the number then under

instruction. By 1881 the proportion in the case of males had risen to 4·7, while ten years later it was 5 per cent., though it had dropped to 4·4, a relatively low figure, in 1901. Female education has progressed more rapidly, from ·12 in 1881 to ·19 in 1891 and to ·22 at the last enumeration. Education is more general among Hindus than with Musalmans, the male proportions in 1901 being 4·64 and 2·82 per cent., respectively. Consequently it is but natural to find the Nagri script in more common use than the Persian, the former being generally employed by 52·1 and the latter by 41·9 per cent. of the literate population, while the balance consists for the most part of those acquainted with English.

Dispensaries. Most of the hospitals and dispensaries in the district are under the management of the district board, though in all cases the executive control is vested in the civil surgeon and his assistants. The first hospital to be started was that at Saharanpur, which was originally maintained by a Government grant added to locally-raised subscriptions. A second was opened at Roorkee in connection with the Ganges canal works, this being a departmental institution and not regarded as a Government dispensary till 1869. A branch dispensary was started at Deoband in 1860, but its brief career lasted only two years owing to the inadequate support afforded by the residents of that town. In 1863 the Jwalapur branch came into existence at the request of the inhabitants, and from the first it was liberally supported. No further development took place till the terrible ravages of fever in the western parganas during 1868 and the following year, which induced the authorities to open dispensaries at Nakur and Gangoh in 1870, the latter being built by Government, while the former was for five years located in a hired house: the cost of upkeep in both cases was met by local contributions. In 1875 the hospital at Saharanpur was rebuilt on a larger scale, and in the following year a fifth branch was established at Manglaur. Since the transfer of the dispensaries to the district board after the constitution of that body in 1884, the only addition has been that of a branch dispensary at Hardwar, which met a long-felt need, owing to the great medical requirements of the place and the inconvenience experienced by patients in having

to go to Jwalapur, where the dispensary was too small to cope adequately with the large demands made on its resources at the time of the more important religious assemblies. The Roorkee hospital has remained throughout under direct Government management, and is classed as a State institution. So, too, are the small canal dispensaries at Kalsia and Mayapur, which exist exclusively for the benefit of departmental employés. In addition to these, there are at Saharanpur the usual police hospital and two railway dispensaries. Mention should also be made of the female hospital at the district headquarters, maintained by the local branch of the Dufferin fund and aided by a Government grant. The value of the dispensaries may be estimated in some measure by the returns, though these do not include the figures for the departmental institutions. For the five years ending in 1877 the annual number of persons attending all the dispensaries in the district averaged 31,462, while the figure for the corresponding period ending in 1907, or exactly thirty years later, was no less than 91,054. The latter does not comprise the patients at the canal dispensaries, nor those at the Saharanpur female hospital, of whom there were on an average 5,354 annually. The total expenditure on the district board dispensaries in 1907 was Rs. 16,806 and the income Rs. 27,177, of which Rs. 8,260 were derived from local fund contributions, Rs. 1,687 from municipal grants and Rs. 3,585 from private subscriptions. The Roorkee hospital is maintained chiefly by Government, the supplementary sources being a municipal grant, interest from investments and local subscriptions: the total being Rs. 5,530. The Dufferin hospital is dependent mainly on local and municipal grants, a small Government allowance and the proceeds of invested capital, the last amounting at the present time to the interest on Rs. 8,000. The Roorkee hospital holds investments to the amount of Rs. 3,200, and Rs. 1,000 each is owned by the dispensaries at Deoband, Nakur, Jwalapur and Gangoh.

Cattle-pounds.

The district board derives a considerable income from cattle-pounds, as will be seen from the table given in the appendix.* The figures do not include those of the four municipal pounds at Saharanpur, Deoband, Roorkee and Jwalapur, the income from

* Appendix, table XV.

which is credited to the municipal funds. The district board pounds are 23 in number, and are located at all the existing police stations with the exception of Mohand, and also at Jabarhera, Titron, Ambahta, Lakhnauti, Kheri in pargana Bhagwanpur, and Tabar in the Jumna *khadir* of pargana Sarsawa. Pounds are especially needed in the Gujar tracts, owing to the amount of cattle-stealing that is still prevalent, and this accounts for the comparatively large number in the western parganas. Pounds were started at an early date, though there is no record of their first institution in this district. Originally they were under the control of the magistrate: and they remained in his direct management till 1891, when they were handed over to the district board.

Nazul. The total area of *nazul* land in the district is 5,102 acres, of which the greater portion lies in the Roorkee and Saharanpur tahsils. Most of this, however, is taken up by roads, police stations, schools and other buildings, and there is comparatively little of a directly remunerative nature. The most valuable properties are the 613 acres of municipal *nazul* at Roorkee and six acres of houses and shops in Deoband, the latter bringing in some Rs. 1,430 annually to the municipal board. The encamping-grounds on the provincial roads are leased annually on behalf of the Public Works department, and those on local roads by the district board. The latter authority controls the *sarai* and attached shops at Nakur, which fetch some Rs. 92 per annum, and the sites of a few old forts and the like, which are rented for insignificant sums. Small patches of cultivated land at Pahlwanpur in pargana Sultanpur and at Rampur are under the direct management of the Board of Revenue.

CHAPTER V.

HISTORY.

Materials for the early history of the district are extremely scanty, in spite of the existence of many ancient sites. Of these the most famous is Hardwar, probably known in remote times by the names of Mayapur or Gangadwara. Its position at the principal gateway of the Himalayan tract rendered it of great strategic importance, and its antiquity is proved by its close association with the earliest Hindu mythology.* Hardwar in the sixth century before Christ was probably included in the kingdom of Kosala, which afterwards became subject to Chandra Gupta of Magadha, the paramount sovereign of all India from his accession to the throne of the Nandas in 321 B.C. The country was held intact by his son, Bindusara, and his better known grandson, Asoka Maurya. Traces of the latter's rule in these parts are to be seen in the rock edicts of Kalsi in the Dehra Dun district and in the so-called golden pillar carried off to Dehli by Firoz Shah.† This pillar is said to have come from the district of Khizrabad, at the foot of the hills, and to have stood originally in the village of Tobra, identified by Cunningham with a hamlet seven miles to the south-west of Jagadhri on the western side of the Jumna.‡ Probably to the same period may be assigned the buried town discovered in 1834 at Behat by Captain Cautley, where, at a distance of 17 feet below the present ground level, were found remains of buildings and numerous coins of the Buddhist era and the Indo-Scythic type.§ Other places of great antiquity are Deoband, traditionally said to be the place where the Pandava brethren resided during their exile; Nakur, the foundation of which is assigned to one of the Pandavas; and Sarsawa, celebrated as the birthplace of Goga Pir, and undoubtedly a very ancient site.

Ancient.

*C. A. S. R., II, p. 231. | †J. A. S. B., VI, p. 609; | ‡C. A. S. R., XIV, p. 78.
§J. A. S. B., III, pp. 43 and 221.

Mediæval.

The Mauryan dynasty was finally overthrown in 184 B.C. and gave place to that of the Sungas, which lasted till 72 B.C., though the influence of the latter probably did not extend so far west as Saharanpur, which with more reason may be included in the dominions of the Saka satraps of Muttra. The invasion of Menander about 155 B.C. perhaps embraced this district, but at all events there are no extant remains of this most confusing epoch. The same may be said of the subsequent Kushan domination, which in the first and second centuries of the Christian era seems to have extended as far eastwards as Benares. The last of the great Kushans was Vasudeva, who seems to have brought about a general Hindu revival, and on his death in 226 A.D. the country became divided up into a number of petty principalities, of which not even the names remain. Then followed the Gupta empire, which included the upper Doab from 320 till at least 480, when Skanda Gupta died. It was during this period, it is said, that the town and fort of Manglaur were founded by Mangal Sen, a local chieftain who acknowledged the Guptas as suzerains. Probably, too, Mayapur rose to increased importance during this era, for in the seventh century it was described by the Chinese pilgrim, Hiuen Tsiang, as very populous and about 3½ miles in circumference.* The fall of the Guptas was largely due to the incursions of the White Huns, who pressed eastwards into the Gangetic valley; but their rule was of short duration, and no paramount power appeared till the rise of Harsha of Thanesar, who from 606 to 647 ruled all Hindustan and many other provinces of India. From the time of Harsha's death to the establishment of the Tomar kingdom of Dehli, in the middle of the eleventh century, replaced in 1151 by the Chauhans under Visala Deva, the history of Saharanpur is a complete blank, unredeemed even by tradition.

Musalman invasions.

The early Muhammadan historians seldom mention this district; for though it appears that the ancient highway connecting the Punjab with the east passed through Saharanpur and Deoband to Meerut, it seems to be the case that whoever held Dehli held the Doab as far north as the Siwalik hills. Consequently the transfer of the capital implies the transfer of the

* Beal, *Buddhist Records of the Western World*, I, p. 197.

Doab. The case was different in Rohilkhand, where local chieftains held sway, secure in their distance from the seat of Musalman garrisons and in their places of refuge in the forests and the mountains to the north. The first reference to the highway in question, though even this is doubtful, occurs in the writings of Al Biruni, who lived between 970 and 1039 A.D. In his itinerary he mentions a place called Sharasharaha, between Kanauj and Thanesar, and this General Cunningham identified with Sarsawa, which was certainly a place of importance in old days as commanding the passage of the Jumna.* A second mention of Sarsawa is made in the account of Mahmud's campaign against the Hindu princes in 1018, though this again is open to doubt. If the invader, as we are told, followed the route along the foot of the hills and then crossed into the Doab, going from Baran or Bulandshahr to Muttra and thence to Kanauj, he would have passed Sarsawa first, whereas the chronicles take him to Sharwa, identified by Cunningham as Sarsawa, after his reduction of Asni.† This Sharwa was the seat of Chand Rai, one of the chief men in Hindustan, who after much fighting had made peace with Jaipal and had given his daughter to the latter's son, Bhim Pal. The difficulty may perhaps be accounted for by the statement that Chand Rai was frightened by Mahmud's conquests and therefore retired to the hills, Sarsawa possibly being not his capital but one of his forts. The place was taken; but Chand Rai escaped through the forest to the hills with the Musalmans in hot pursuit, and on the 6th of January 1019 a battle was fought, in which the Hindus were utterly routed and an enormous amount of plunder and innumerable slaves fell into Mahmud's hands. Whatever be the place intended, it is certain that about this period the northern portion of this district fell out of cultivation and that little improvement took place for several centuries.

The Musalman conquest.

The routes taken by Saiyid Salar Masaud and Ahmad Nialtigin did not touch Saharanpur, nor is there any reference to the district in connection with the conquest of Hindustan by Qutb-ud-din Aibak, the general of Shahab-ud-din Ghori, in 1196.

* E. H. I., I, p. 67. | † *Ibid.*, II, pp. 42, 47 and 459.

It is clear, however, that the tract was included in the dominions of the Sultan, and was probably administered from the capital. In many parts of the country, no doubt, the conquest was but nominal at first, for we are told that in 1217 Shams-ud-din Altamsh subjugated all the territory up to the Siwaliks, presumably for the first time, and captured Mandawar in the Bijnor district.* In 1253, after a campaign in the hills of the Punjab, Nasir-ud-din crossed the Jumna at Rajghat and traversed the north of the district, making the passage of the Ganges at Hardwar, whence he turned southwards to Budaun.† This progress seems to have been due to a local rebellion in the northern Doab and Rohilkhand, which in the latter had compelled the governor to abandon Sambhal.

Foundation of Saharanpur.

The next event of importance was the first incursion of the Mughals in 1308, under the command of Ali Beg Gurgan, a descendant of Changiz Khan. With a force estimated at 40,000 horse he swept through the Punjab, crossed the Jumna at Rajghat, and then passed along the foot of the hills into Bijnor, to be utterly defeated by the army of Ala-ud-din near Amroha.‡ Shortly afterwards another invasion followed, and plundered the northern Doab; but the Sultan sent his troops to hold the fords of the Jumna and completely annihilated the Mughals on their return. These events must have retarded the development of the district, which had already commenced, but the overthrow of the invaders re-established security, and the rapid spread of agriculture in these parts is expressly mentioned. During the reign of Muhammad *bin* Tughlaq the city of Saharanpur was founded, apparently at the orders of the Sultan himself, who called it after a celebrated saint named Shah Haran Chishti, whose shrine remains an object of veneration to this day. Progress was again checked by the Mughals, who returned in 1329 under Tarmsharin Khan, following the old route. He was the brother of Katlagh Khwaja, king of Khorasan, and his expedition was the largest yet sent into India.§ Having pillaged all the Punjab, his troops turned into the Doab, proceeding to the confines of Budaun after an unsuccessful siege of Meerut. The historians declare that he was defeated and driven back; but it is

* E. H. I., II, p. 241. | † *Ibid.*, p. 353. | ‡ E. H. I., III, p. 198. | § *Ibid.*, V, p. 485.

more probable that he was bribed to withdraw, the more so as both Muhammad and his successor, Firoz Shah, did their utmost to conciliate the Mughals, of whom they were terribly afraid. To protect this district from future attacks, posts were established along the Jumna with good effect, since none of the many inroads that subsequently occurred seem to have extended into the Doab. It was during a tour of inspection of these garrisons that Firoz saw the pillar of Asoka at Khizrabad and ordered its removal to Dehli. In 1379 the Sultan made a progress through Samana and Umballa, and thence came to Saharanpur; he received the submission of the Raja of Sirmor and other hill chiefs, and then returned to his capital.* In 1387 he again visited the Siwaliks and hunted in the Dun, and it is curious to note that the rhinoceros was then to be found here. Shortly afterwards his son Muhammad rebelled, and on being driven from Dehli he fled northwards to Saharanpur and the hills, where he remained till the death of his father in 1389.

Timur.

Nine years later the district was again overrun by the invading hordes of Timur, who himself has recorded the events that took place on this expediton.† After the defeat of Mahmud and the capture of Meerut and Dehli, he sent Jahan Shah to march up the left bank of the Jumna, and to ravage the country while Timur in person took the bulk of his forces to the Ganges and thence into Bijnor, crossing the river at Tughlaqpur in Muzaffarnagar, near the Balawali ferry. He then won three victories in a single day, on the last occasion defeating a large force which had collected below the Chandi hills, opposite Hardwar. Resting for the night, he cleared the hills of the fugitives and crossed the river, encamping five miles below Hardwar. He then determined to return, and had actually proceeded two marches southwards, when he retraced his steps on hearing that the enemy had assembled in strength in the Siwaliks. On being joined by Jahan Shah, of whose doings no record exists, he appears to have marched to Hardwar, where he forced the defile against the opposition offered by Bahruz, the chieftain of the Dun. He camped that day at Hardwar and then went to Bahrah, a dependency of Bakri, in the country of Mayapur.

* E. H. I., IV, p. 14. | †Ibid., III, pp. 451 and 505.

Thence four *kos* to Sarsawa, and the following to Kandar on the banks of the Jumna. After passing that river he again entered the Siwaliks, but his subsequent operations lay in the territories of the Punjab.

The Saiyids.

Timur left the country in a state of utter confusion, and though Mahmud still held the throne, he had no power or influence, and the land was divided between various nobles till Khizr Khan took Dehli in 1414. He bestowed Saharanpur on Saiyid Salim, the chief of the Saiyids, and it was probably at this period that the Barha Saiyids first established themselves in Muzaffarnagar, profiting by the favour shown them by a Saiyid governor.* The same man in time acquired a large province, extending from Sirhind to Amroha, and he held charge at any rate till 1430. After his death his property devolved on his sons, Saiyid Khan and Shuja-ul-Mulk, who rebelled and were imprisoned, though their dependant, Pulad, maintained an obstinate resistance in Sirhind. The Saiyids appear to have recovered their estates, since they were again in favour under Muhammad *bin* Farid, the grandson of Khizr Khan. Subsequently the Doab passed into the hands of the Lodi Sultans, who retained it intact to the end, and it was never threatened by the invading forces of Jaunpur.

The Mughal conquest.

The change came with the advent of Babar in 1526. During his fifth expedition into India he took the old route by way of Umballa and Sirhind, and on reaching the Jumna he crossed the river to visit Sarsawa.† The country was then in a flourishing condition, and Babar bestowed the town on Tardi Beg Kakshal, who was delighted with its aspect. Thence the imperial army marched two stages southwards, and a skirmish took place near Titron in pargana Gangoh between the Mughals and an advanced guard of Ibrahim's army. The river was recrossed, and shortly afterwards the decisive battle of Panipat was fought, which delivered the country into the hands of Babar. Saharanpur was then under the governor of Dehli, and the district remained in the possession of Babar and Humayun till the ejection of the latter by Sher Shah in 1541. No reference to Saharanpur is to be found in the annals of the Suris, nor is there any mention of the reconquest of the tract by Humayun. The

* E. H. I., IV, pp. 46 and 68. | † *Ibid.*, pp. 250 and 290.

sole incident recorded by the historians is the rebellion of Alam Khan Miana, who during Sher Shah's last year raised the province of Meerut and plundered the whole country. His operations must have affected this district, since he crossed the Jumna in the north and attacked Sirhind, near which place he was defeated and slain by Malik Bhagwant, the governor.* The latter was subordinate to Khawas Khan, who held Dehli for the Sultan and administered the country dependent on the capital. To the time of Babar's invasion may be assigned the foundation of the Turkman colony at Lakhnauti, while in 1527 Abdul Quddus, the famous saint, founded the Sarai or new town of Gangoh, where his descendants still reside. His sons were Sheikh Rukn-ud-din, who attended Akbar's court, and Sheikh Ahmad, the father of the more celebrated Abd-un-Nabi, who from 1564 to 1577 was Sadr of the empire: he then incurred Akbar's displeasure and was sent to Mecca, on his return from which place he was imprisoned and murdered in 1584.

Akbar's administration.

The records preserved in the *Ain-i-Akbari* are of some interest as showing the economic condition of the district at that period. Saharanpur then gave its name to a *sarkar* or government in the *suba* or province of Dehli, and this *sarkar* was divided into the four *dasturs* or districts of Deoband, Kairana, Sardhana and Indri. It extended from the Siwaliks into the present Meerut district, and the area was subdivided into 36 *mahals* or parganas, of which a large number lay beyond the existing Saharanpur boundary. All the remainder were included in the Deoband *dastur*, which embraced a good deal of Muzaffarnagar and was by far the largest of the four. The names in some cases have been retained to this day but the boundaries have been altered from time to time, especially in the days of Rohilla supremacy and in the earlier years of British rule.

The parganas.

The *mahal* of Saharanpur, where was a brick fort, was then in the possession of Afghans, Kulals and Tagas, who undertook to furnish 100 cavalry and 800 infantry, and paid a revenue of 6,951,545 *dams* on a cultivated area of 212,336 *bighas*. To the north lay Raipur Tatar, corresponding to the modern Faizabad, a Taga pargana with only 4,688 *bighas* of cultivation, paying

* E. H. I., IV, p. 407.

369,080 *dams*, and providing ten horse and 200 foot. Muzaffarabad, held by Hindu and Musalman Pundirs, who supplied 20 horse and 200 foot, was a large *mahal*, with a cultivated area of 81,306 bighas and a revenue of 4,074,064 *dams*. Rurki or Roorkee was known by its present name and was mainly forest: the cultivated area was only 2,768 *bighas* though the revenue was 1,628,360 *dams;* and 25 cavalry and 200 infantry were contributed by the Rajput, Taga, Brahman and other landholders. Jwalapur was then called Bhogpur, its headquarters being at Hardwar, where a brick fort stood on the banks of the Ganges. It was held by Rajputs styled Sarirs, who paid 2,338,120 *dams* on 94,428 *bighas* of cultivation: the local levies were 100 horse and 1,000 foot. Bhagwanpur lay partly in the *mahal* of Jaurasi, then held by people called Bidars, who supplied 20 horse and 200 infantry: its cultivated area was no less than 211,751 *bighas*, and the revenue was 2,471,277 *dams*. Adjoining this was Malhaipur, now part of Haraura, and owned by Afghans, Tagas and Brahmans, whose contingent was 100 cavalry and 500 footmen: the area under tillage was 81,010 *bighas* and the revenue 2,244,070 *dams*. Manglaur, a town with a brick fort, gave its name to a *mahal* in the possession of Brahmans and Bargujars, who furnished 40 horse and 300 foot, and paid 2,350,311 *dams* on 60,987 *bighas* of cultivation. Deoband also had a brick fort, and was a very large pargana with a cultivated area of 335,861 *bighas* and a revenue of 6,477,977 *dams;* the *zamindars* were Gujars and Tagas, and the local levies numbered 60 horse and 300 foot. Rampur, held by Tagas and others, provided 50 horse and 400 infantry and paid 1,777,908 *dams*, the cultivation being 79,419 *bighas*. To the south lay Nanauta, with its 29,224 *bighas* under the plough and a revenue of 724,153 *dams ;* it was held by Afghans, who furnished 40 horsemen and 300 infantry. The present Sultanpur was included in Behat Kanjawar, though this *mahal* extended further to the north. It was a Taga pargana, with a contingent of 500 foot and 50 cavalry, and paid 2,676,407 *dams* on 173,471 *bighas* of cultivation. Sarsawa had a brick fort and was also a Taga *mahal*, the *zamindars* contributing 30 horse and 200 foot, while they paid 2,516,125 *dams* on a cultivated area of 106,300 *bighas*. Nakur was the property of

Afghans and Brahmans; it had 65,612 *bighas* under tillage, assessed at 1,387,070 *dams*, and supplied 40 cavalry and 300 infantry. There was also the small *mahal* of Ambahta, held by Gujars and Saiyids, who provided a levy of 20 horse and 300 foot, the revenue being 324,560 *dams* and the cultivated area 17,764 *bighas*. Gangoh was the property of Turkmans, who also held Lakhnauti. They were a warlike race, furnishing the imposing force of 600 cavalry and 4,000 infantry. The assessed area of the former was 52,137, and of the latter 79,694 *bighas*, while the revenue was 2,029,032 and 1,796,058 *dams* respectively. Part of Lakhnauti, it would seem, lay in the present district of Muzaffarnagar, but this is compensated by the fact that a portion of the modern Gangoh belonged to Thana Bhawan, an existing pargana of Muzaffarnagar, which was then much larger than it is to-day. The district was under a governor residing at Saharanpur, and there were mints for copper coinage at Saharanpur and Hardwar.

Subsequent changes.

Several changes were made in this arrangement between the death of Akbar and the British conquest. Some were merely nominal, Bhogpur becoming known as Jwalapur, and Raipur Tatar as Faizabad; but apart from these a number of new parganas were formed. In the reign of Shahjahan the small *mahal* of Jahangirabad was separated from Raipur Tatar, about the same time that the latter's name was altered and Faizabad became for a while the capital of the *sarkar*. Sultanpur, too, was taken out of Behat Kanjawar, though possibly Shahjahan only altered the designation, the division occurring later. The Rohilla chieftains seem to have been addicted to a system of small parganas. Najib-ud-daula made Katha a separate charge, so as to hold the Pundirs in check. His *amil*, Anwar Khan, took Patehar out of Behat Kanjawar and made it his own estate; and another, Jamal Khan, formed Jamalgarh out of Gangoh. In the days of Zabita Khan the pargana of Kheri was constituted out of Roorkee, and similarly Sakrauda was separated from Jaurasi by Rao Qutb-ud-din, the head of the converted Rajputs of that tract. The changes that have occurred subsequent to 1803 have been mentioned in the preceding chapter.

Akbar's revenue.

The most remarkable feature of the statistics given in the *Ain-i-Akbari* is the surprising state of development that the district had then attained. The cultivated area amounted to 1,688,746 *bighas* or 1,055,465 acres, which is much larger than the normal amount at present under tillage. Even if a generous margin be allowed for land now in Muzaffarnagar, it is evident that, if any reliance whatever can be placed on the returns, the tract must have been in as highly cultivated condition as at the close of the nineteenth century. The richness and fertility of the upper Doab were proverbial, the country being rightly regarded as the granary of the empire. The land had peace, and was seldom visited by famine; and this condition of affairs was maintained till political disturbances brought war into the country and opened up the rich fields of Saharanpur to the marauders from the Punjab and the south. At the British conquest the miserably depressed condition of the district was self-evident; and recovery was retarded by a mistaken and oppressive revenue policy, which effectually checked development for the half of a century. The revenue obtained by Akbar, too, was vastly greater than that now assessed, though no doubt the methods of collection allowed for much more elasticity than those of the present day. Reduced to rupees the total was Rs. 10,53,403, exclusive of Rs. 60,316 assigned as *suyurghal* for specific objects. This gave an average incidence of more than one rupee per acre of cultivation, and its severity only becomes apparent when it is remembered that at that epoch the purchasing power of silver was at least four times as much as it now is. How large a proportion was actually realised cannot be ascertained; but there is no room for doubt that the share then taken by the State represented a far larger proportion of the produce than the revenue now paid to Government by the *zamindar*.

Akbar's successors.

The materials for the history of the district during the reigns of Akbar and his successors are exceedingly scanty. The land had peace, and the general tranquillity is reflected in the absence of incidents that would have attracted the attention of the historians. For the same reason the charge of Saharanpur was unimportant, and consequently was seldom given to persons of noted capacity or distinction. Being under the immediate

control of Dehli, the district was a mere appanage of that Government and became a favourite place of resort for the nobles of the court, to whom the cool and comparatively healthy climate, and the facilities it afforded for hunting, rendered it peculiarly attractive. In the reign of Jahangir the Empress Nurjahan visited these parts, taking up her residence at the village now called Nurnagar, in the north of Muzaffarnagar; and in 1621 Jahangir himself went to Hardwar, though his stay was brief, as he found the climate disagreeable and no place appropriate for a residence.* In the next reign the celebrated Ali Mardan Khan built the royal hunting lodge for Shahjahan at Badshahibagh at the foot of the hills. Portions of the palace are still standing, near the headworks of the canal which the same minister is said to have designed and constructed, though it apparently was but little used till long afterwards. In the reign of Aurangzeb the *sarkar* of Saharanpur was bestowed on Sheikh Muhammad Baka, who held it till his death in 1683 at the age of 57. This man was the reputed author of the *Mirat-i-Alam*, and a scholar of note. He erected many buildings in the town, and among them several mosques and wells, and the houses by the Raiwala tank in the suburbs: he gave his name to the Bakapura *muhalla*.

The Sikhs.

A new era commences with the death of Aurangzeb and the gradual disruption of the Mughal empire which then ensued. The growing disorder was first emphasised by the rising of the Sikhs, who in 1708 took advantage of the absence of Bahadur Shah in the Deccan to plunder the Punjab under the leadership of one Bandu. After defeating Wazir Khan, the governor of Sirhind, they besieged and sacked that town, taking possession of the country up to the right bank of the Jumna. This caused consternation at Saharanpur, then held by Ali Muhammad Khan who incontinently fled to Dehli.† The other officers and the townspeople, however, were made of sterner stuff, and proceeded to put the place in a state of defence so that when the Sikhs crossed the river and began to plunder the rich plain of the Doab, they met with a stout resistance. It appears, however, that this was but partially effective, as the invaders gained possession of a great part of the town, where they distinguished themselves by

* E. H. I., VI, p. 382. | † *Ibid.*, VII, p. 415.

frightful atrocities. They then overran the Doab, but were checked at Jalalabad in Muzaffarnagar by the brave defence offered by Jalal Khan, the founder and *faujdar* of that place. The people of the district too had done their best, and it is recorded that many towns and villages managed to resist the marauders. Foiled at Jalalabad, the Sikhs recrossed the Jumna and continued their depredations in the Punjab. The next year they again advanced towards Dehli, but, after a long campaign, were defeated and driven to the hills. This reverse seems to have checked their energies for a time, since nothing more is heard of the Sikhs till 1714, in the reign of Farrukhsiyar. They had then broken out in the Punjab, and had ravaged all the country from Lahore to Sirhind, once more threatening the Doab. Their victorious career was checked by Abd-us-Samad Khan, the governor of Lahore, who first defeated them in a pitched battle and then captured their stronghold of Gurdaspur, together with their leader Bandu who was put to death. For many years after this the Sikhs remained quiet, recruiting their shattered forces, and we do not hear of them again until the almost entire absence of authority in the upper Doab afforded them the desired opportunity for repeating their incursions.

The Saiyids.

Another reason for the comparative quiet of this district lay in the increasing power of the Barha Saiyids, who from 1712 onwards extended their possessions rapidly and became practically supreme throughout Muzaffarnagar and Saharanpur. Their leaders were the celebrated brothers Hasan Ali Khan and Husain Ali Khan, who became the most powerful persons in the empire. Their ascendancy naturally rendered them objects of hatred and suspicion, which in time developed into civil war. The Saiyids were at first victorious, but the turning point came with the assassination of Husain Ali Khan in 1720, and the defeat of his brother at Husainpur in the same year. Their estates were conferred on Muhammad Amin Khan, who held the title of Itimad-ud-daula: but he died in 1721, before he had fully established his authority in the district. He was followed by Wazir Qamr-ud-din, who had all along been the implacable enemy of the Saiyids. This man was for a long time engaged in other parts of the empire, and confined his attention to withholding

the Saiyids from all posts of importance; but eventually in 1737, feeling that his efforts had not been completely successful, he determined to destroy his enemies once and for all. To achieve this purpose he had despatched Marhamat Khan to Saharanpur as governor with orders to resume all the Saiyid *jagirs*, and in carrying out these commands Marhamat Khan acted with such violence and brutality that the Saiyids rose as one man and put him to death. This gave the Wazir the occasion he had sought; and he thereupon assembled a large force of Turanis, together with a body of Afghans under the Rohilla chieftain, Ali Muhammad, and attacked Jansath, the headquarters of the Saiyid family. Saif-ud-din Ali Khan, the leader of the Tihanpuris, was defeated at Bhainsi in Muzaffarnagar, and shortly afterwards Jansath was taken by storm and given over to destruction. Many of the Saiyids fled to various parts of India, and thenceforward their power was utterly broken. The resumption of the *jagirs* was completed by Azim-ullah, who established his authority throughout the district. In 1738, however, Dehli fell into the hands of Nadir Shah, and on his departure the Doab became a scene of utter confusion. It was at this time that the Rohillas began to extend their authority beyond the Ganges, while the local chieftains, and notably the Gujars of Landhaura, first attained a position of any importance. Azim-ullah was transferred to Malwa in 1740, and Saharanpur was conferred on Hafiz-ud-din Khan: but two years later he fell into disfavour along with other Turanian nobles and was deposed. Another governor during the reign of Muhammad Shah was Zafar Khan, better known as Roshan-ud-daula, who built the mosque in the Chandni Chauk at Dehli. This man gave Ambahta to Shah Muhammad Bakir, a son of the famous Shah Abdul Maali, whose descendants still retain their ancestral property.

Najib-ud-daula.

After the death of Muhammad Shah in 1748 troubles arose in the Doab owing to the quarrel of the Wazir, Safdar Jang, and Ghazi-ud-din, who was in chief command of the army. The former sent a force to ravage the country under Indargir Goshain, and this actually reached Saharanpur before it was defeated by Ghazi-ud-din, who had enlisted the aid of the Rohillas. Among the latter was Najib Khan, who had already

distinguished himself in the service of Ali Muhammad and held grants of land in the Bijnor district. He was now rewarded with the parganas of Saharanpur and Budhana, together with all the territories of the Barha Saiyids. He devoted himself to the consolidation of his power, ultimately acquiring not only the whole district up to the Siwaliks but also the Dun, which he conquered about 1757. To the south he held the country from Ghausgarh on the Jumna to Shukartar on the banks of the Ganges.

At the same time he was constantly engaged at Dehli, where he stood high in the favour of Ahmad Shah, whom he has rescued from the devices of Safdar Jang in 1753, and of his successor, Alamgir II, the latter having raised him to the dignity of Amir-ul-umra, with the personal title of Najib-ud-daula. His advancement aroused the jealousy of Ghazi-ud-din, who deprived Najib-ud-daula of his offices and compelled him to retire to Saharanpur. There in 1757 he received the fugitive prince, Ali Gauhar, afterwards Shah Alam, who had escaped from Dehli, and allowed him Rs. 50,000 per mensem. He collected the Rohilla leaders, Hafiz Rahmat, Dunde Khan and others; but feeling unequal to the task of taking Dehli, gave up the project, and sent the prince on to Shuja-ud-daula the next year. Ghazi-ud-din then induced Sindhia to attack the Rohillas, and a large force was sent into the Doab under Jhanku. Najib-ud-daula was compelled to shut himself up in Shukartar, which was his strongest fortress and commanded the passage of the Ganges. Being in great straits, and because Jhanku had detached Gobind Pandit to cross the river at Hardwar and then to ravage all Bijnor, he implored the aid of the Rohilla leaders and the Nawab Wazir of Oudh, as well as of Ahmad Shah Abdali, who was contemplating a second descent on Hindustan. Shuja-ud-daula replied to the message by advancing into Rohilkhand and driving out the invaders, at the same time relieving the pressure on Shukartar. Thereupon Ghazi-ud-din in person came to assist Jhanku, but Najib-ud-daula seized his opportunity and escaped to Saharanpur, where he joined hands with Ahmad Shah Abdali. Soon afterwards Jhanku was worsted in a skirmish and driven to Dehli, where he was severely defeated. Subsequently, in January 1760, the

Marathas were utterly routed at Panipat. For the distinguished part he had played Najib-ud-daula was once more given the title of Amir-ul-umra and was made *bakhshi* of the empire. He then became absolute in Dehli, having in his care Jiwan Bakht, the son of the absent emperor, Shah Alam, who had become heir to the throne on the murder of Alamgir II by Ghazi-ud-din in 1759. His power was threatened by Suraj Mal, the Jat of Bhartpur, but the latter was killed in 1763, and an attempt at war in 1764 on the part of his son, Jawahir Singh, was averted by the diplomacy of Najib-ud-daula. Not long afterwards the Rohilla chieftain was compelled by ill health to resign his post and return to his new home at Najibabad, where he died after several years of sickness in 1770. Strong as Najib-ud-daula was, however, he could not preserve even his own estates intact from invasion. The battle of Panipat practically restored the Punjab to the Sikhs, who at once recommenced their plundering expeditions. In 1763 an immense force crossed the Jumna and actually sacked the town of Saharanpur, thence ravaging the country far to the south. In the next year the Budhadal, as the Sikh army was called, plundered all the Doab from the Siwaliks to Meerut, and even crossed into Bijnor. In this they were assisted by the Gujars, who reduced the country to utter anarchy. Najib-ud-daula was absent at Dehli, and the Rohilla *sardars* arrived on the scene too late to punish the marauders, who had withdrawn unmolested. They came again in 1767 in greater strength than ever, and swept through the west of the district, plundering Nanauta and other towns. At Meerut they were checked, and during their retreat northwards they were badly beaten near Shamli in Muzaffarnagar; but no sooner had the imperial troops returned than they again sallied forth, burning Nanauta and all the villages they met as far as Kandhla. Najib-ud-daula then took the field and succeeded in clearing the district, eventually driving them from Nanauta and Islamnagar to the fords of the Jumna.

On the death of Najib-ud-daula his younger son, Zabita Khan, succeeded to the estates, his principal seat being at Saharanpur. This man had already attained great power and influence at Dehli and now hoped to retain his father's position, but his

Zabita Khan.

designs were frustrated by the return from the east of Shah Alam, who had invoked the assistance of the Marathas. The latter still cherished a deadly enmity against the house of Najib Khan, and consequently Zabita Khan left the capital and proceeded to Saharanpur. There he refused to pay tribute and made preparations for a vigorous defence, relying mainly on the strength of Shukartar. The Marathas then advanced into the Doab, ravaging the country, and when shortly afterwards they were joined by the imperial army under Najaf Khan, the Rohilla leader sent all his family and goods over the Ganges and proceeded to Shukartar. There he was joined by Hafiz Rahmat and others, but in December 1771, finding that the Marathas had crossed the Ganges at Hardwar so as to threaten his line of retreat, he hastily fled, after a half-hearted battle, leaving all the Doab with the exception of Ghausgarh in the hands of the enemy. The Rohillas then gave way to panic, flying to the hills, whence they sent urgent messages for aid to Shuja-ud-daula. Peace was made in June 1772, chiefly because the Marathas were anxious to return to their own country. In this manner Zabita Khan regained possession of his estates in the Doab; but the other Rohillas were left to their fate, their power being finally broken by the defeat and death of Hafiz Rahmat at the hands of Shuja-ud-daula. Zabita Khan's treachery was further exemplified two months later by his entering into negotiations with the Marathas, by which he regained much of his power, together with the coveted title of Amir-ul-umra. His influence at court, however, was but small owing to the predominance of Najaf Khan, and this led to a quarrel. In the meantime the Sikhs again put in an appearance in 1774, when they ravaged the entire Doab, while in the following year Zabita Khan bought them off by a payment of Rs. 50,000: then they proceeded into Muzaffarnagar, and on their return Zabita Khan entered into an alliance with them and openly rebelled. Marching down the Doab, they fought an unsuccessful battle with the imperial troops near Budhana, and thence retreated to Amirnagar, where in March 1776 they inflicted a severe defeat on their opponents, killing Abdul Qasim Khan, the brother of Najaf Khan. They then seized all the Doab, but were checked by Najaf Khan, who eventually

overthrew the allies near Ghausgarh in 1777. A reconciliation was then effected, but Zabita Khan's power was broken. He afterwards regained the favour of his conqueror, and was confirmed in his government of Saharanpur: but he does not appear to have taken any further active part in politics. His country was constantly exposed to Sikh attacks, as the plundering hordes crossed the Jumna every year from 1778 to 1781, when they were severely handled by Mirza Muhammad Shafi, who defeated them near Meerut, pursued them to the river and carried the war into their own country. The Sikhs never forgave Zabita Khan for his defection and renewed their incursions in 1783, when the land was suffering from famine; and on this occasion they ravaged all Saharanpur up to the Ganges, and even entered Dehra Dun from Hardwar. Zabita Khan was helpless and shut himself up in Ghausgarh, where he died in 1785.

Ghulam Qadir.

He was succeeded by his son, Ghulam Qadir Khan, a man of great determination, a cruel disposition and an ungovernable temper. His first act was to seize the lands of his relatives, and among them those of his uncle, Afzal Khan. He then regained all the territories held by his grandfather, Najib-ud-daula, including the Dun, and strongly fortified his castle of Ghausgarh. His activity made him respected by the Sikhs, and for the first time for many years the land had peace. The period of his rule, though eventful, was brief. In 1787, taking advantage of the death of Najaf Khan, he led his forces down the Doab to Dehli, the Marathas being then engaged elsewhere, as Sindhia was fighting with the Raja of Jaipur, and Mansur Ali Khan, who was in charge of the palace, urged Ghulam Qadir to seize the vacant office of Amir-ul-umra. The Maratha commandant sent a small force to oppose the Rohillas, who defeated the enemy with great slaughter, and Ghulam Qadir thus gained possession of the capital. He was checked, however, by the determined attitude of the Begam Somru of Sardhana, who so intimidated the rebels by her advance that they withdrew across the Jumna. Soon afterwards Ghulam Qadir returned to the attack, and though Najaf Quli Khan came to the assistance of the emperor he stood his ground. He next proceeded to take possession of the Doab as far as Aligarh, when a reconciliation was effected

Muzaffarnagar he was overtaken by a large force of cavalry belonging to Holkar, and he was consequently compelled to shut himself up in the fort of Shamli, where he defended himself desperately till relieved by Lord Lake on the 3rd of November. On the approach of the latter's army the Marathas disappeared, departing southwards by way of Meerut, and Colonel Burn continued his march to Khatauli, where he was joined by Mr. Guthrie, who had been rescued from Saharanpur by a regiment belonging to the Begam Somru. By this time the Sikhs had extended their raids beyond the borders of this district, but Muzaffarnagar was cleared by the advancing column, which ejected Gurdatt Singh from Thana Bhawan. The Sikhs then united their forces and took up a strong position at Charaon, on the banks of the Hindan some seven miles west from Deoband, their army being swelled by large numbers of Gujars and Rangars from all parts of the district. Here they were attacked on the 24th of November 1804, but the issue was long doubtful, owing to the cowardice displayed by the irregular horse that accompanied Colonel Burn. The day was really decided by the artillery, an arm which the Sikhs did not possess. Sher Singh lost a leg in the engagement, and was carried off by his uncle, Rai Singh, to die at Burhiya. During the engagement much assistance was rendered to the British by Qazi Muhammad Ali of Manglaur and Sheikh Kalan, afterwards notorious for his treatment of the Landhaura estate. In spite of their defeat, the Sikhs again invaded the district, occupying Rampur, Thana Bhawan and the neighbourhood of Deoband. Colonel Burn hastened from Saharanpur to Thana Bhawan, and on the 19th December made an unsuccessful attempt to surprise the enemy at Tholu in pargana Gangoh; but the Sikhs, hearing of his approach, fled across the Jumna by way of Chilkana. They were pursued as far as the river, but at Saharanpur Colonel Burn received orders not to proceed further into the Punjab, and he accordingly returned to the district headquarters. In the following January several small parties entered the district, penetrating the Doab as far as Muzaffarnagar, but they were ejected without much difficulty.

Amir Khan Pindari.

The district was still in a very disturbed state, and matters were rendered worse in February by the irruption of Amir Khan

Pindari. Colonel Burn received orders to watch the fords of the Ganges and prevent the invaders from crossing, and accordingly he left Bhag Singh of Jhind and Bhai Lal Singh of Kaithaul in charge of Saharanpur, and marched by way of Jabarhera to Miranpur in Muzaffarnagar, where he was joined by Mr. Guthrie. In March Colonel Burn was summoned into Rohilkhand, but on the 9th of that month the Sikhs again rose, probably at the instigation of Holkar, and a large force crossed the Jumna to join Gurdatt Singh who was threatening Kandhla. Mr. Guthrie was then in the small fort of Fazalgarh near Meerut, with about a hundred irregular levies: he could consequently do nothing but resume the *jagir* of Gurdatt Singh and direct Raja Ram Dayal of Landhaura and Muhamdi Khan of Marhal to guard Hardwar. On the 17th of March the Sikhs attacked Thana Bhawan, but were repulsed with loss by the Qazi of that place. Negotiations were then opened with the Sikh leaders, but the latter still continued to plunder the country as far south as Meerut, burning the villages and the standing crops. On the 5th of April, therefore, Colonel Burn crossed the Jumna and attacked Karnal, the capture of which effectually put an end to all further Sikh invasions. The district was finally cleared by the ejection of the Burhiya family from Ghaziuddinnagar near Saharanpur, to which they laid claim on the grounds of a permanent lease.

The Gujar rising.

Comparative tranquillity then ensued till 1813, when the death of Raja Ram Dayal and the resumption of his enormous estate occasioned a Gujar rising, which was fortunately quelled before it became serious. The war with the Gurkhas in 1814 did not affect Saharanpur, though an indirect result was the attachment of Dehra Dun to the district under Regulation IV of 1817, this arrangement lasting till 1825, when the Dun was assigned to Kumaun. In 1824 a somewhat dangerous disturbance was caused by two Gujars: Kalwa, a celebrated dacoit, who for years harassed the submontane tracts of Kumaun and Garhwal, and Bijai Singh, the *taluqdar* of Kunja near Roorkee, who was related to the late Raja Ram Dayal. Without the knowledge of the authorities they collected a large armed force at Kunja, and only attracted notice when they sacked the town of Bhagwanpur and plundered a strong treasure escort bringing in money from

the Jwalapur tahsil. Mr. Grindall, then magistrate of Saharanpur, obtained a reinforcement of Gurkha troops belonging to the Sirmor battalion, and at once attacked the insurgents in company with Mr. Shore, his joint magistrate. A stubborn fight ensued, lasting for a whole day, and eventually the rebels were totally defeated, with a loss of nearly two hundred killed and wounded, among the former being the two leaders. It was afterwards found that the attack on Kunja had been most fortunately planned, for the rebels had devised a rising on a very large scale, and numerous reinforcements were actually coming to their assistance from this and other districts, when the death of the leading characters made the whole conspiracy collapse.

The Mutiny.

The last great episode in the history of Saharanpur was the Mutiny of 1857. The district at that time was in the charge of Mr. R. Spankie, with Mr. H. D. Robertson as joint magistrate and Mr. G. W. Colledge as assistant. There were also present in the station Messrs. P. C. Trench and R. M. Edwards of the civil service, together with several other Europeans belonging to the collector's establishment or to the canal and stud departments. The only force of troops was a treasury guard of one company from the 29th N. I. at Moradabad, while the civil jail guard numbered about a hundred men. The news of the Meerut outbreak reached Saharanpur on the 12th of May, and the intelligence was at once forwarded to Umballa. The next day the women and children were sent to the hills, and shortly afterwards more bad tidings came from Dehli and Muzaffarnagar. This was followed by considerable disorder, as the Gujars and Rangars promptly rose, robbing the bankers and money-lenders or extorting blackmail from them, and renewing old feuds in every direction. Mr. Spankie immediately instituted punitive measures, sending out small parties to disperse the insurgents on the 21st of May and the two following days. On the 23rd Mr. Robertson proceeded along the Mohand road with twenty mounted police, in consequence of the many highway robberies that had occurred on that route ; they captured 28 men with plundered property, and sent them into headquarters under an escort provided by the *zamindars* of Haraura. He then attacked the village of Gokulwala with the aid of the Kheri and other *zamindars,* and

seized the owners, who had been guilty of several crimes committed in the neighbourhood. It was found that the majority of the countryfolk were loyal; but about the same time the city began to show symptoms of unrest, and in consequence a party of the 4th Cavalry under Captain Wyld and two companies of the 5th N. I. came in from Umballa. On the 26th of May Mr. Robertson with a small force went to Deoband where he met with a hearty reception from the inhabitants, whose loyalty was never called in question throughout the disturbances. The next day he proceeded to the three Gujar villages of Babupur, Fatehpur and Sanpala Bakal, where a smart action ensued, the Gujars being defeated and their villages burned. He then intended to punish other lawless villages to the west, but hearing that preparations had been made to resist him in the Katha, he prudently refused to risk the chance of a reverse at so critical a period, and instead marched to Nagal. On the 30th of May Mr. Spankie went to Manglaur, being joined by Mr. Robertson and his force; but an attempt to capture Umrao Singh of Manakpur, who had set himself up as Raja and was levying contributions from the villagers, failed on account of the rebel's flight.

Further trouble ensued on the return to headquarters, owing to the excitement of the sepoys. On the 2nd of June an outbreak occurred among the men of the 5th N. I., some of whom attempted to shoot Captain Garstin and other officers. Luckily no harm was done; but the mutineers escaped with their arms, and the situation was saved only by the arrival of the Gurkhas from Dehra on the 3rd, under the command of Major Bagott. By this time all confidence in the troops had been lost, especially as the 29th N. I. at Moradabad had mutinied. The Gurkhas were at once employed in dispersing a body of Gujars who had assembled with the intention of attacking the treasury. On the 5th Mr. Robertson went to Roorkee after visiting some refractory villages and meting out punishment to the guilty, and returned on the 8th. Nothing of importance occurred for a week, but on the 16th a fresh danger was threatened by the irruption of the Jullundur mutineers, who had crossed the Jumna 300 strong. Lieutenant Boisragon and Mr. Edwards were sent to intercept them, and the

June 1857.

rebels hastened through the district, covering the distance from the hills to the southern border in thirty hours. Two days later a second party went out with a similar object, but were unable to catch the flying sepoys. On the 20th news came of a Gujar attack on Nakur, and Mr. Robertson promptly marched thither with 30 Gurkhas and 40 Patiala *sawars*, arriving in time to find the tahsil and police station in flames, and the whole town sacked and gutted, except the Musalman quarter. No trace of the marauders was to be found, but on scouring the country he came across a large body of men and women carrying off the plunder to Fatehpur. That village was burnt but the neighbourhood had now risen, and the small force had to send for help and take up a position for the night. They were relieved on the 22nd by Boisragon and his Gurkhas, on whose arrival an action ensued, the rebels being driven in flight with heavy loss. Four villages were burnt, and the next day Sandauli and Randahwa were similarly treated. The column then went on to Buddha Kheri, the headquarters of the Gujars, which was demolished, and thence to Gangoh. There they halted, and on the 26th they set out to punish the Rangars of the *khadir*. The insurgents were found in great force at Umarpur and Manpur, and Boisragon attacked them from both flanks; they were driven in flight with great slaughter, and pursued as far as Konda, where a number of the fugitives were intercepted. In this way Lakhnauti and Gangoh were saved from the Rangars, who had planned an attack on those places. It was observed on all sides that the rising was due mainly to the bigoted Musalmans, especially those of Nakur and the neighbourhood, for the Gujars paid attention rather to plunder than to any definite idea of displacing the Government. Sarsawa had suffered in the same manner as Nakur, but in both instances the Musalman quarters were untouched, while the Muhammadans took no part in the resistance to the marauders offered by the other inhabitants. The troops returned to Saharanpur on the 28th of June, after visiting Rampur, which had been threatened by the insurgents. The next incident of importance was the defection the company of the 29th N. I. on the 9th of July, but this had no untoward results and was rather a relief than otherwise: the men left their

posts hurriedly and departed, but without doing any damage or attempting to touch the treasury. On the 11th Mr. Robertson proceeded to Roorkee, the story of which place may be briefly told.

The news of the Meerut outbreak reached Roorkee on the 12th of May, when an urgent message was sent for the despatch of the Sappers and Miners to Meerut. They were sent off the same day by boat down the canal on the suggestion of Colonel Baird Smith, who was then superintendent of irrigation, but two companies were left behind as a garrison. Information of the recent events was forwarded to Dehra, where the Sirmor battalion was cantoned, and preparations were made for the transport of that corps in a similar manner. The station then contained a European community of some 200 souls, including 90 males fit to bear arms, though only one-third were trained soldiers. Colonel Baird Smith at once made arrangements for the defence of the place, and selected the workshops as the most suitable refuge. He was very short of arms and ammunition, but he fitted up three old guns taken in the Sikh war, though at present powder was not obtainable. On the 14th considerable alarm was caused by a fire at the college, and as the circumstance was considered to be due to deliberate mischief, a guard was formed of the soldier students, and a system of patrols instituted for the whole station. The next day Colonel Baird Smith was appointed to the military command, and he thereupon proceeded to transfer the reserve ammunition from the Sappers' lines to the workshops. This met with opposition on the part of the men, who were now in a very excited state; but they were brought to reason by Baird Smith himself, who explained that measures of defence were necessary against the Gujars of the neighbourhood. On the 16th the sepoys were given charge of the college and all the Europeans were moved into the workshops, which had been fortified and entrenched. On the 18th one of the Sapper companies was sent away to Dehli on a requisition from the Commander-in-Chief; but it had not proceeded beyond Sikandarpur when the men mutinied and insisted on returning to Roorkee, where the remainder were in a state of the greatest excitement on hearing news of the mutiny and punishment of their comrades at Meerut.

Roorkee.

The troops returned during the night, and the officers were respectfully escorted to the workshops: they then made off towards the Ganges, though about fifty, including the native officers, remained at their posts. In this manner the real crisis passed, and Baird Smith was now able to direct his attention to the surrounding villages and the protection of the canal, which was exposed to the attacks of the Gujars. Parties were sent out in various directions: but few collisions with the marauders occurred. His attitude encouraged the people, however, and the residents of Kankhal and Jwalapur successfully repelled attacks on the 21st and 26th, while on the latter occasion the canal subordinates made a gallant and most fortunate defence of the headworks. The next day Baird Smith proceeded in person to Hardwar, where he was cordially welcomed, and subsequently he sent a party down the canal to Jauli and thence to Muzaffarnagar, which was reached without opposition. On the 11th of June the Europeans from Bijnor arrived in Roorkee, but it was discovered that three persons were in the hands of the Nawab of Najibabad, and a party under Captain Robertson and Mr. Medlicott went off to attempt their rescue. Crossing the Ganges at Hardwar, they reached Najibabad on the 15th of June and executed their mission satisfactorily, the Nawab handing over the refugees and providing carriage for them. Baird Smith meanwhile was perfecting his defences, casting guns, raising irregular troops and actually finding time to edit a newspaper entitled. *The Roorkee Garrison Gazette.* He obtained funds by collecting revenue in the Roorkee tahsil, the inhabitants being generally friendly, or at all events yielding immediately in the presence of an armed detachment. On the 22nd of June a party marched to Manglaur to disperse a large band of Gujars intent on plundering that town, and achieved considerable success. On the 26th Colonel Baird Smith was summoned to Dehli, and he set off with a hastily improvised force of Pioneers, leaving Captain H. E. Read in command.

By this time the Banjaras in the *khadir* were committing great excesses, and it was on this account that Mr. Robertson left Saharanpur. With a small force under Captain Maclagan he proceeded to Jwalapur, and thence on the 15th of July to

Rani Mazra, only to find every village in the tract burnt and plundered. He was then delayed by the height of the Banganga, but on the 17th a crossing was effected and a number of Banjaras were severely handled at Fathua, the remainder escaping to an island on the Ganges. On the 19th he returned to Roorkee, and thence proceeded with reinforcements from the garrison to Deoband, which had been again attacked by the Gujars from that neighbourhood and from Pur in Muzaffarnagar. He reached the town on the 22nd and found that about one-third had been sacked. Several villages were punished, but this work was stopped by the receipt on the 25th of orders from Saharanpur bidding the party return to defend the city against an attack planned by Gujars, Rangars and the Pundirs of the Katha. The jail guard was disarmed and replaced by Gurkhas, while the arrival of two guns from Meerut and 40 Europeans from Landaur frustrated the designs of the insurgents. The *kotwal* of Saharanpur, who had long been suspected, was then transferred to Nakur, whence he was afterwards deported to Umballa, his escort surprising some Gujars near Sadauli and capturing the principal rebel of those parts.

Closing operations.

Thenceforward order was gradually restored. Mr. Lowe, who had returned to the district as assistant, was sent to Deoband and Mr. Melville to Roorkee, in order to collect the revenue, while the garrison was strengthened by the arrival of some Punjab irregular cavalry. It was even found possible to send reinforcements into Muzaffarnagar to take part in the attack on Thana Bhawan, where Mr. Lowe was severely wounded. Much yet remained to be done in repressing lawlessness, but the task became easier as disarmament was steadily effected. The only danger that threatened the district was the power of the Bijnor Pathans, who by this time held undisputed control of the country beyond the Ganges. In January 1858 a force from Najibabad attacked Hardwar, and were only prevented from seriously damaging the canal headworks by the bravery of the subordinates at Mayapur. Two days afterwards they returned, but on this occasion Boisragon set out from Roorkee with a hundred men for Mayapur and discovered a large body of rebels encamped three miles below Kankhal on the opposite side of

the river. Soon after the insurgents crossed the Ganges near Kankhal, but Boisragon was ready for them in the town. Promptly attacking them so as to prevent their access to Jwalapur, he drove them headlong to the south and sent his cavalry in pursuit. Many attempted to recross the river, but their flight was cut off by the diversion of the entire canal supply into the stream and numbers were drowned. This success secured the district from further molestation, as it effectually checked the aspirations of the Najibabad Nawab. In the following month troops were sent into the district from various quarters, to concentrate on Roorkee, for the formation of a brigade intended to operate in Rohilkhand. The force left Roorkee in April under the command of Brigadier Jones, and on the 17th crossed the Ganges at Hardwar.

ards.

Thus ends the story of the Mutiny so far as this district is concerned. The record is a remarkable one, for at first everything pointed to a rebellion as complete as in other parts of the provinces. Saharanpur was particularly fortunate in the officers stationed there, and also in the promptitude with which appeals for assistance were met both from Umballa and Landaur; but at the same time the situation was saved principally by the general behaviour of the inhabitants, excepting the Gujars, Rangars and other turbulent elements, and a striking illustration of this is to be found in the fact that in some parts of the district the settlement operations then in progress were never suspended. Save for the instances already recorded, punishments for rebellion were few, while on the other hand the list of rewards for loyalty is unusually long. The most prominent recipient was Padhan Sahib Singh, the uncle of the young Raja of Landhaura, who, though a Gujar, kept the members of his clan in subjection and rendered good service in the east of the district: he obtained the title of Rao and the grant of two villages revenue-free for life. Rewards of land were given to Usman Khan of Haraura, Karamat Husain Khan of Deoband, Ghulam Haidar, the tahsildar, and Fazl-ur-Rahman, the *qazi* of Saharanpur. Money rewards and commendatory *parwanas* were given to several subordinate officials of the Canal department, and free water for a year was allowed to the villages who protected the works on the eastern Jumna canal.

Since the suppression of the Mutiny the peace of the district has remained undisturbed, save for the small riots that occurred at Hardwar in connection with plague preventive measures. To these reference has been made in a previous chapter: and the same may be said of other events connected with the administrative, fiscal and economic history of the tract. Subsequent events.

GAZETTEER

OF

SAHARANPUR.

DIRECTORY.

GAZETTEER

OF

SAHARANPUR.

DIRECTORY.

CONTENTS.

AMBAHTA, *Pargana and Tahsil* NAKUR.

A small and fairly prosperous town standing in 29° 51′ N. and 77° 20′ E., at the junction of the roads leading from Nakur to Rampur and from Saharanpur to Gangoh, at a distance of four miles south-east from Nakur and 16 miles south-west from the district headquarters. The place is of some antiquity and is said to have been selected as a cantonment for the Mughal troops employed by Firoz Shah, who gave it the name of Firozabad, and possibly built the old fort, of which remains are still to be seen. There are three good mosques, of which the oldest was built by Sikandar Lodi in 916 Hijri, while another dates from the time of Humayun and the third was erected in 1168 H. In the days of Akbar it gave its name to a pargana, now included in Nakur, which was held in revenue-free tenure by the Pirzadas, a family of Saiyids who came from Mecca more than three hundred years ago. The chief member of this family was Shah Abul Maali, who flourished in the 17th century and was buried in the middle of the town. His tomb is a fine domed building with minarets; it is in good repair, and is held in veneration by all the Musalmans of the district. His descendants are still in good circumstances and hold a large property, the greater part of which is revenue-free : the leading representatives of the family are Shah Fakhr-ud-din, son of Shah Qutb-ud-din, and Shah Masaud Ahmad, son of Shah Mahmud Ahmad.

The town on the whole stands high, and the drainage is carried away to the south-east leading into the Katha, some two miles distant. Many of the houses are built of brick, and the bazar consists of a double roadway with a line of somewhat indifferent shops down the centre. Markets are held here weekly, but the trade is merely local. The only manufacture of note is wood-carving for which Ambahta is celebrated, especially in the matter of carved doors, some of these obtaining a prize at the Colonial Exhibition in London. The place possesses a post-

office and a middle vernacular school. The population has greatly increased since 1847 when it numbered 4,160 souls, rising to 6,311 in 1853 and to 6,336 in 1875. The total fell in 1872 to 6,039, but rose again to 6,392 in 1881. Ten years later a decline was once more observed, and this has continued to the present day. The number of inhabitants in 1891 was 5,978, and at the last census 5,751, of whom 3,463 were Musalmans, 1,961 Hindus and 327 of other religions.

The area of the village lands is 1,675 acres, of which 56 acres are taken up by the town itself and nearly 190 acres are under groves, chiefly to the north and north-west of the site. The town proper has been administered since 1860 under Act XX of 1856; it is also subject to the provisions of the Village Sanitation Act, 1892. In 1907 the number of houses was 1,937, and of these 1,171 were assessed, the house-tax yielding Rs. 1,593, with an incidence of Re. 1-5-9 per assessed house and Re. 0-4-5 per head of population. There is some miscellaneous income, which with the initial balance brought the total up to Rs. 1,912, while the expenditure for the same year was Rs. 1,712. The chief item was the maintenance of ten *chaukidars* at a cost of Rs. 695, while Rs. 624 were expended on the conservancy staff and Rs. 135 on minor local improvements.

AMBAHTA SHEIKHA, *Pargana and Tahsil* DEOBAND.

A considerable village lying in 29° 39′ N. and 77° 37′ E., about four miles south-west of Deoband and a mile west of the Deoband branch of the Ganges canal. It is connected by small roads with the tahsil headquarters, Rankhandi and Kutesra in Muzaffarnagar. The place had a population at the last census of 2,445 persons, of whom 969 were Musalmans and 88 Aryas. The village lands cover 1,153 acres and are held in *bhaiyachara* tenure by Hindu and Musalman Tagas, who pay a revenue of Rs. 2,300. The cultivation is carried on by the proprietors themselves, and irrigation is chiefly effected from the canals. There is an aided school in the village, and to the east, near the canal, is a small inspection bungalow.

BADGAON, *Pargana and Tahsil* DEOBAND.

A village standing in 29° 42′ N. and 77° 32′ E., on the high left bank of the Kali, and on the south side of the road from Deoband to Gangoh, at a distance of nine miles west of the former and 21 miles south of Saharanpur by a branch road which here takes off to Rampur. The place belongs to the Katha tract and is held by Pundir Rajputs, who cultivate most of the land themselves and pay a revenue of Rs. 2,150 on a total area of 1,249 acres, the tenure being *bhaiyachara*. The population in 1901 numbered 1,204 persons, of whom 128 were Musalmans. Badgaon possesses a police station, a post-office, a cattle-pound and a lower primary school. Under the new scheme the police circle has been greatly enlarged by its amalgamation with that of Nanauta, the *thana* remaining here while that of Nanauta has been abolished.

BADSHAHIBAGH, *Pargana* FAIZABAD, *Tahsil* SAHARANPUR.

A stage on the metalled road from Saharanpur to Chakrata, at a distance of 28 miles north from the former, and at the foot of the ascent through the Siwaliks to the Timli pass. The place is situated in 30° 20′ N. and 77° 39′ E., on the east bank of the Badshahibagh torrent, the course of which is followed by the road, and at the junction of the latter with the submontane forest road from Khara to Hardwar. There is no village of Badshahibagh, the land being under the Forest department, and no fixed population. The old dak bungalow has been converted into an inspection-house; but the large encamping-ground is still maintained, and there is also a forest rest-house a short distance to the north. The name appears to be derived from a grove or garden made here by Shahjahan, who built a hunting lodge at Badshahi Mahal, near Faizabad, some three miles to the west. On the hills above Badshahibagh are the ruins of an old fort known locally by the name of Sarwin Marwar, but no tradition has been preserved of its history.

BAHERA, *Pargana* HARAURA, *Tahsil* SAHARANPUR.

A large but otherwise unimportant agricultural village in the north-west corner of the pargana, standing in 30° 3′ N. and

77° 41′ E., at a distance of ten miles north-east from Saharanpur. The inhabited site belongs to the two distinct *mauzas* of Bahera Kalan and Bahera Khurd, but is practically one; it contained in 1901 a population of 2,764 persons, of whom 919 were Musalmans and 54 Jains. The principal inhabitants are Pundir Rajputs, the owners of the land. The two villages have an area of 1,451 acres, and extend from the Nagdeo on the west to a small tributary stream on the east, the latter rising in the moist lands of Muzaffarabad, below the submontane tract, and joining the Nagdeo a short distance south of Bahera. The tenure is *bhaiyachara* and the revenue Rs. 2,375. The village possesses an upper primary school, but the girls' school formerly maintained here has ceased to exist.

BASSI, *Pargana* GANGOH, *Tahsil* NAKUR.

The small village of Bassi stands in the south-west corner of the pargana and district, in 29° 42′ N. and 77° 11′ E., at a distance of seven miles from Gangoh, 17 miles from the tahsil headquarters and two miles north of Chausana in Muzaffarnagar. The village is off the road and is built on the high bank overlooking the Jumna *khadir*, and is an insignificant place inhabited by a cultivating community of Chauhans. The population in 1901 numbered only 301 souls, of whom 199 were Musalmans. The area is 1,025 acres, but a large portion consists of grassy waste, liable to submersion by the Khokri, and the revenue is but Rs. 470. The village deserves mention as possessing a police station and a cattle-pound: but the former is likely to be abolished in the near future, the circle being amalgamated with that of Gangoh.

BEHAT, *Pargana* FAIZABAD, *Tahsil* SAHARANPUR.

A small town standing in 30° 10′ N. and 77° 37′ E., on the west side of the metalled road leading from Saharanpur to the Timli pass and Chakrata, at a distance of sixteen miles north from the district headquarters. To the west of the site flows the Naugaon Rau, and to the east, beyond the road, runs the Jumna canal, which crosses the Naugaon a mile to the north, the torrent being carried across the canal channel by means of a

large masonry dam and regulator. Close by is a canal bungalow and the workshops of the northern division.

Behat or Bahat is a place of great antiquity, though little is known of its history. In excavating the canal Captain Cautley discovered a buried town seventeen feet below the level of the surrounding country and 25 below that of the existing site. He unearthed a number of Indo-Scythic coins and other remains which pointed to a large Buddhist settlement, but there was no opportunity for making a full exploration of the place. In Akbar's day Behat was the headquarters of a pargana known as Behat Kanjawar, the latter part of the name being derived from a village now in Muzaffarabad. The capital was removed to Sultanpur in the reign of Shahjahan, but under the Rohillas Behat was made a separate charge which continued in existence till 1842. The place is the seat of an old Musalman colony, founded in the days of Bahlol Lodi by Shah Abdullah, whose ancestor was the famous saint Baha-ud-din Zakaria of Multan. Abdullah received from the Sultan a number of villages in the neighbourhood on a rent-free grant, ostensibly for charitable purposes. His descendants are known as Pirzadas and still own the lands of Behat, though a portion has passed into the hands of Banias. The area is 2,282 acres, but only three-fifths are cultivated, as there is still a large expanse of jungle and waste along the canal: the tenure is *pattidari*, and the revenue Rs. 2,600.

The population of Behat in 1901 numbered 5,063 persons, of whom 3,173 were Musalmans, 1,763 Hindus and 127 of other religions. The place contains a police station, a post-office, a cattle-pound and an upper primary school. A small market is held weekly in the town, but the trade is unimportant. The manufactures of the place consist of work in wood and cane, particularly chairs and umbrellas, which have some local reputation; as well as ploughs and other implements, which are made in large quantities by the Lohars. There was formerly an annual fair held in honour of Shah Abdullah, but the gathering has ceased to have any importance, and the Pirzadas, though once the owners of a large property, are now in great poverty.

BHAGWANPUR, *Pargana* BHAGWANPUR, *Tahsil* ROORKEE.

The capital of the Bhagwanpur pargana is a small town standing on the high right bank of the Solani, in 29° 56′ N. and 77° 49′ E., between the river and the metalled road from Roorkee to Fatehpur and Mohand, at a distance of seven miles north-west from the tahsil headquarters and seventeen miles from Saharanpur. It is connected with the latter by an unmetalled road which joins the main road to Dehra at Gagalheri, while a second runs south-west to the railway station of Chodiala, a distance of five miles. The Gagalheri road continues eastwards across the Solani to Dhanauri on the canal and thence to Jwalapur and Hardwar, but is a little frequented and inferior route.

Bhagwanpur is said to have been founded as early as 1061 by a colony of Brahmans and Rajputs; but in spite of its comparative antiquity the place has never attained any importance, and its selection as the capital of a pargana is a matter of recent date. It is merely an agricultural village, with no buildings of interest, no manufactures and no trade beyond the small business done in the weekly bazar. It possesses a police station, a post-office, a cattle-pound and a large upper primary school. Mention may also be made of the Raiwala tank, a masonry structure on the south side of the Roorkee road. The population of the place in 1872 numbered 2,412 souls; but by 1881 the total had risen to 3,591, though this figure refers not to Bhagwanpur proper but to the whole area included in the *chaukidari* town. In 1891 Bhagwanpur *khas* contained 1,971 inhabitants, to which should be added the 953 persons residing in Shahpur, an adjoining site on the west. In 1901 the population of the combined area was 2,696, of whom 864 belonged to Shahpur, while of the whole 1,736 were Hindus, 947 Musalmans and 13 of other religions.

Since 1860 Bhagwanpur has been administered under Act XX of 1856, while the provisions of the Village Sanitation Act, 1892, were subsequently extended to the place. In 1907 the town contained 960 houses, of which 570 were assessed, the yield of the house-tax being Rs. 869, or practically the same as in the two preceding years. The incidence was Re. 1-8-3 per assessed

house and Re. 0-5-1 per head of population, the latter being the highest rate in the district. The total income, including the initial balance and Rs. 44 of miscellaneous receipts, was Rs. 1,185, while the expenditure for the same year was Rs. 896. The principal items of the latter were Rs. 365 for the upkeep of the town police force, Rs. 165 for the maintenance of a conservancy staff and Rs. 266 for works of local improvement. The opening of the railway to Hardwar has had a great effect on Bhagwanpur, which used to be an important resting-place for pilgrims. It is now a mere agricultural village, and owing to the ravages of the plague in 1907 it is doubtful whether it will retain its position as an Act XX town. The area of the revenue *mauza* is 774 acres, of which about 475 are cultivated; it is assessed at Rs. 1,053, and is owned by Mahajans, Bohras and others.

BHAGWANPUR *Pargana, Tahsil* ROORKEE.

This pargana is the largest of the four that make up the Roorkee tahsil, and comprises a long and comparatively narrow stretch of country lying to the west of pargana Roorkee and extending to the borders of Muzaffarabad, Haraura and Nagal. To the south lies Manglaur, while on the north the boundary is the high ridge of the Siwaliks, separating this district from Dehra Dun. The total area is 98,915 acres or 154·55 square miles.

This figure excludes a large portion comprised in the reserved forests, which embrace not only the whole of the hilly portion but extend southwards into the submontane tract, taking in a belt about two miles broad, as well as an almost detached area of large extent, occupying the broken country between Kheri and the Roorkee boundary, and continuing southwards almost to Sakrauda. This plateau is considerably more extensive than the actual forest reserves, and consists of an infinity of mounds and hillocks separated from each other by ravines with sloping sides covered with brushwood. The drainage is carried southwards into the Solani by the Sipia and its many affluents, of which the chief are the Haljaura, Khokra, Jakni and Dhandora, these being mere torrents that bear water only in the rains. There are but few villages in this tract and cultivation is very restricted, while the great depth of the water level precludes irrigation, though in

ordinary seasons the rainfall is abundant. The Sakrauda plateau is bordered on the north, west and south by the valley of the Solani. This river is formed by the junction near Kheri of numerous hill torrents that rapidly traverse the *ghar* or sub-montane belt, doing much damage to the broken and light-soiled land on their banks. The *khadir* of the Solani is narrow in the north, but gradually widens out towards the south-east. It is subject to inundations, which are more or less destructive in their effects, and between the river and the Sipia there are several patches of swampy waste and barren sand; but the greater part of the *khadir* lies beyond the reach of normal floods and has a productive loam soil in the north, stiffening into clay further down. Both bear good crops, but the condition of the villages varies, depending much on the composition of the proprietary bodies and tenantry. The land is sufficiently moist to need no irrigation, and the main staples are *rabi* crops in the north and rice in the south-east.

The Solani has little *khadir* on its right bank, but keeps close to the high cliff that marks the western boundary of the Ganges watershed and continues through the pargana in a south-easterly direction, eventually passing into Roorkee near the town of that name. The soil below is very poor and at all times subject to diluvion, save for a small strip in the north, adjoining the confines of Muzaffarabad. The bank itself is broken by ravines and the soil is very light and sandy. It is crowned by a number of large village sites, from which the level sinks perceptibly to the south into the fertile plain of the central uplands. The drainage goes southwards into the eastern arm of the Kali Nadi, which closely follows the western boundary of the pargana, and also into the Sila and its affluent, the Khala. In a few villages in the south-eastern corner the surface water is held up to a considerable extent, suggesting the advisability of a cut leading into the Sila. In this upland tract the soil is generally a good loam, varied by sand on the higher ridges and by clay in the depressions. The waterlevel is fairly high and the subsoil is moist, but irrigation is scanty owing to the difficulties encountered in sinking wells through the sandy substratum. Formerly there was a deficiency of water even for drinking purposes, but

late years have witnessed a substantial increase in the number of masonry wells, and the tract is no longer exposed to the danger of the severe distress occasioned here by the drought of 1860.

The southern portion of the pargana is highly developed, while in the north there has been a great improvement during the past fifty years, though much of the land must always remain poor and precarious. In 1866 the cultivated area was 52,875 acres, and by the last settlement this had risen to 61,814. These figures, however, do not include the jungle grants assessed after 1890, and consequently it is not possible to establish an exact comparison between the present and the past. For the five years ending in 1906-07 the average area under tillage was 69,845 acres or 70·62 per cent. of the whole pargana, excluding the reserved forest. A further advance has taken place in the matter of the double-cropped area, which now averages 20 per cent. of the net cultivation. There is necessarily a large amount of barren land, averaging 14,495 acres or 14·65 per cent. of the whole, but this includes 9,911 acres under water or taken up by torrent beds and 3,000 acres permanently occupied by buildings, railways, roads and the like, leaving only 1,469 acres shown as actually sterile. On the other hand, much of the culturable area, 14,575 acres in all, is little, if at all, superior to this, the bulk of it consisting of stony or sandy soil, in many cases covered with jungle, though a deduction must be made of 3,278 acres of current fallow and 695 acres of groves.

Save in the south, means of irrigation can hardly be said to exist, for although in the *khadir* the water-level is high, the construction of wells is almost impossible, owing to the sandy and shifting nature of the subsoil. On an average only 1,890 acres are irrigated, though on occasions the figure has been almost doubled, and of this 1,154 acres are supplied from wells, 314 from the canal and 422 from tanks or streams: only two estates in the extreme south-east are within reach of canal water. The *kharif* harvest still exceeds the *rabi* in point of area, averaging 42,659 as against 40,996 acres; but the latter shows a constant tendency to increase with the spread of double-cropping, and in 1905-06 the *rabi* largely exceeded the autumn harvest. The principal spring crop is wheat, occupying 59·22 per cent.

of the land sown, apart from 9·82 per cent. under wheat in combination with gram or barley, and the great increase in the case of this staple is a notable feature in the history of the pargana. Gram takes up 21·66 and barley 3·86 per cent., while *masur* is the only other crop worthy of mention. In the *kharif* rice takes the lead with 25·34 per cent., four-fifths of this being of the early variety. Next come *bajra* with 17·25, *juar* with 16·12, maize with 12·8, cotton with 9·74 and sugarcane with 7·53 per cent. The rice and sugarcane areas have decreased, while cotton shows a slight improvement, and the cultivation of maize has spread very rapidly, the crop being well suited to an unirrigated tract.

The cultivators of the pargana are mainly Garas, Sainis, Gujars, Tagas, Rajputs, Chauhans and Banjaras. In 1906-07 the total area included in holdings was 73,771 acres, and of this 32·88 per cent. was cultivated by proprietors, 10·31 by occupancy tenants, 53·48 by tenants-at-will and 2·41 by ex-proprietors, the remaining ·92 per cent. being rent-free. The occupancy area in 1866-67 was 6,951 acres, and this rose to 9,203 twenty years later, while the present figure is 7,603 acres. The area now held on grain rents is 5,667 acres, as compared with 10,278 in 1886 and 17,205 at the preceding settlement. The average occupancy rental is Rs. 3-15-4, and that of tenants-at-will Rs. 5-12-3 per acre, while the corresponding rates twenty years previously were only Rs. 2-14-6 and Rs. 3-15-3. The revenue demand of successive settlements is shown in the appendix: the present incidence is Re. 1-11-11 per acre of cultivation, or rather higher than in the neighbouring tracts to the east and west.* The total is apt to vary from time to time owing to the existence of 115 alluvial *mahals* last assessed in 1907 to a revenue of Rs. 8,484.

The pargana contains 130 villages, at present divided into 588 *mahals*. Of the latter 96 are held in single and 294 in joint *zamindari* tenure, a form which is far more common here than in any other part of the district; 140 are *bhaiyachara*, 51 imperfect *pattidari* and the remaining seven are of the perfect variety of the same tenure. At the last settlement Rajputs held 31·6 per cent. of the total area, though they had lost heavily during the two

* Appendix, tables IX and X.

preceding decades, the chief gainers being Mahajans, who had 22 per cent., while next came Gujars 12·2, Tagas with 8·5 and Garas with 7·4 per cent., smaller amounts being owned by Sheikhs, Brahmans, Sainis, Kolis, Europeans and others. There are no large estates in the pargana, but several villages belong to Banias of Saharanpur, Bhagwanpur, Choli and elsewhere. Khan Sahib Muhammad Naim Khan of Kailaspur owns two villages and three shares; the Sheikhs of Raipur in Muzaffarnagar hold one village and one share; while others are the Rajputs of Imlikhera and Maharaj Singh, a Gujar of Manakpur.

The area was originally comprised in that of the neighbouring subdivisions and the pargana had no separate existence until 1855, when Jaurasi was abolished and 22 of its villages added to 17 from Muzaffarabad, 69 from Roorkee, 19 from Manglaur and one from Deoband. Consequently it is impossible to ascertain the population prior to the census of 1865, when it contained 56,725 inhabitants. The total rose to 63,770 in 1872, to 67,765 in 1881 and to 71,978 ten years later. During the ensuing decade a slight decrease occurred, and in 1901 the total was 70,312 persons, of whom 32,890 were females. Classified by religions there were 43,966 Hindus, 26,275 Musalmans and 71 others. The pargana possesses no town, unless Bhagwanpur itself be thus described; but there are several large villages of which the chief are Sakrauda, Paniala, Kheri and Srichandi, each possessing more than two thousand inhabitants, while Khubanpur and Chodiala are places of considerable size.

The northern and larger portion of the pargana is practically devoid of means of communication, save for the submontane road from Hardwar to Khara and the metalled road from Saharanpur to Mussooree, which runs just beyond the western borders. Along the high bank of the Solani is carried the metalled road from Roorkee to Bhagwanpur and Fatehpur, there joining the Saharanpur road; while through Bhagwanpur runs the road from Gagalheri to Dhanauri and Hardwar. Another road connects Bhagwanpur with the Chodiala station on the Oudh and Rohilkhand Railway, which traverses the southern portion of the pargana, the Roorkee station being close to the eastern boundary. In the south-east corner, passing through Paniala, is the road from Roorkee to Jabarhera,

CHANDAINA, *Pargana* NAGAL, *Tahsil* DEOBAND.

A very large village in the south-west of the pargana situated in 29° 45′ N. and 77° 36′ E., on the left bank of the Hindan river, at a distance of six miles north-west from Deoband, with which it is connected by a small unmetalled road. The place is generally known as Chandaina Koli from the caste of its *zamindars*, who hold the village in *bhaiyachara* tenure and pay a revenue of Rs. 3,850. The village lands cover 2,610 acres and extend as far west as the river Hindan, the western portion being subject to inundations from that river and consequently precarious. Irrigation is chiefly obtained from wells, the village being beyond the reach of the Deoband canal. The population at the last census numbered 2,780 persons, of whom 385 were Musalmans; Kolis form the prevailing Hindu caste. There is a lower primary school here, but nothing else of any interest or importance.

CHILKANA, *Pargana* SULTANPUR, *Tahsil* NAKUR.

This small town is the chief place in the pargana, and lies in 30° 4′ N. and 77° 28′ E., at a distance of nine miles north-west from Saharanpur and six miles from Sarsawa, with both of which it is connected by unmetalled roads. It is built on the edge of the high bank that overlooks the *khadir* of the Jumna, and almost adjoining it on the north is Sultanpur, which is separately described. Of the foundation of the place nothing is known; but it is the home of an ancient, though now decayed, family of Saiyids, and has always been an essentially Musalman town. From its strategic position on the old high road to the Punjab it was considered of some importance, and in the days of Maratha rule held a garrison of troops maintained by the Begam Somru. During the Mutiny the place suffered at the hands of marauding Gujars, who were dispersed by the arrival of a force from Jagadhri.

The population of Chilkana numbered 4,026 persons in 1872; and though by 1881 the total had risen to 4,503, subsequent years have witnessed a marked decline, the number falling to 3,922 in 1891, while at the last census the town contained 3,584 inhabitants, of whom 2,068 were Musalmans, 1,400 Hindus and 116

others, chiefly Jains. The place possesses a police station, a cattle-pound, a post-office and a large upper primary school. The market is held in Sultanpur. Chilkana was brought under the operation of Act XX of 1856 in 1860, but ten years later was combined with Sultanpur for greater administrative convenience. The lands of Chilkana are 497 acres in extent and are held in *bhaiyachara* tenure by the Saiyids, who pay a revenue of Rs. 955.

CHODIALA, *Pargana* BHAGWANPUR, *Tahsil* ROORKEE.

The village of Chodiala stands in 29° 55′ N. and 77° 46′ E., at a distance of four miles south-west from Bhagwanpur and thirteen miles from the district headquarters. It gives its name to a station on the Oudh and Rohilkhand Railway, from which a road leads to Bhagwanpur passing through the village, though the station is nearly two miles from the site and actually lies in the village of Tejupur. The place had in 1901 a population of 1,768 persons, of whom 288 were Musalmans. There is an upper primary school here, but no market or trade of any importance. The area of the village is 1,516 acres, of which some 1,330 are under cultivation. It is held in *bhaiyachara* tenure at a revenue of Rs. 2,377 by a large body of Tagas, while small shares are owned by the Pathans of Kailaspur and the Mahajans of Kota.

DAUSNI, *Pargana* MANGLAUR, *Tahsil* ROORKEE.

A small village standing in 29° 46′ N. and 77° 59′ E., on the south side of the road from Manglaur to Sultanpur Kunari, at a distance of seven miles east from the former, three miles west from Laksar and about nine miles from Roorkee, with which it is connected by a branch road leading through Landhaura and taking off from the right bank of the Solani. That river flows about a mile and a half to the west of the village and is crossed by a ferry. Dausni deserves mention only as possessing a police station, which it is proposed to abolish, the scheme involving the amalgamation of its circle with that of Sultanpur and the erection of a new station at Laksar. There is also a cattle-pound: but the post-office is at Laksar, where too is the railway station, important as the junction for the line to Dehra. The population of Dausni at the last census numbered 637 persons,

of whom the majority were Gujars. The village, which belongs to the Landhaura estate and is assessed at Rs. 400, is very small, having a total area of 271 acres. Laksar is little bigger, being 299 acres in extent, and pays a revenue of Rs. 505; it is held in imperfect *pattidari* tenure by Gujars. Outside the Laksar station is a large and well-managed *dharamsala*, erected for the convenience of travellers by Seth Suraj Mal of Calcutta.

DEOBAND, *Pargana and Tahsil* DEOBAND.

The large and important town of Deoband lies in 29° 42′ N. and 77° 41′ E., at a distance of 21 miles south-south-east from the district headquarters, on the main road from Saharanpur to Muzaffarnagar. This road touches the town on the extreme north and then curves round the eastern outskirts, continuing in a southerly direction from the south-east corner. From it a road runs eastwards to Manglaur and Roorkee, while a second leads south-east through Barla and Bhukarheri in the Muzaffarnagar district to Bijnor. From the western side of the town another unmetalled road goes to Nanauta, Gangoh and Karnal, crossing the North-Western Railway, on which there is a station to the south-west of the site and connected with the latter by a short metalled road.

Deoband is a place of great antiquity, and is said to have been the residence of the Pandavas during their first exile, while the Musalmans assert that it was one of the first towns captured by Saiyid Salar Masaud. The name is supposed to be a corruption of Devi-ban, the sacred forest, and in one of the many groves which almost surround the site, rendering it almost invisible from the railway, there is an ancient temple of Debi, where a religious gathering takes place annually in the month of Chait. There are, however, but few old buildings in the place, although its importance under the Musalmans is proved by the existence of the Jami Masjid built by Sikandar Lodi in 1507 and one, among forty-one others, attributed to Aurangzeb and founded in 1664.

The population of the town numbered 11,634 persons in 1847, and this rose to 18,638 in 1853 and to 21,714 in 1865. At the following census in 1872 it dropped to 19,168, but by 1881 it

had again risen to 22,116, the highest point ever reached, for in 1891 it had fallen to 19,250, while at the last census the number of inhabitants was 20,167 of whom 9,663 were females. Classified according to religions, there were 7,958 Hindus, 11,825 Musalmans, 372 Jains, six Christians and six Aryas. The town lands are very extensive, covering an area of 5,200 acres, of which 967 are revenue-free; the remainder is assessed at Rs. 8,880 and is held in *bhaiyachara* tenure by a large body of Musalmans, most of whom are in very reduced circumstances. No less than 475 acres are under groves, while more than 3,000 acres are cultivated.

Irrigation is obtained to a small extent from wells and tanks, but the principal source is the Bastam distributary of the Deoband branch canal flowing to the east of the town. The whole site lies very low, and much difficulty has been caused by the defective drainage. Close to the south-eastern outskirts is a large tank called the Debikund, the northern and western banks of which are covered with temples, *ghats* and numerous *sati* monuments much frequented by pilgrims. From this tank runs a wide depression known as the Jor, passing eastwards into the eastern Kali Nadi which flows about three miles from the town. In 1881, in order to relieve the obstruction and waterlogging due to the construction of the railway and the canal, of which the latter was undoubtedly responsible for a marked rise in the spring level, a channel known by the name of Jenkinson's cut was excavated so as to carry off the surface water from the western and southern outskirts into the Imlia, a small tributary of the Kali Nadi. It is kept in order by the Canal department, part of the cost of maintenance being defrayed from a municipal grant. The drainage of the town itself has long presented a difficult problem, as nearly all the old drains needed to be re-levelled, and the inability to select a suitable outfall caused the question to be postponed for years, although a large sum was set aside for the purpose. The trouble was to a great extent caused by the fact that the syphons on the Deoband branch canal allowed the drainage of sixteen square miles to flow into the Deoband depression, finding its way into the Imlia and resulting in extensive waterlogging during the rains. An examination of the spot in 1902 showed that while saturation had occurred prior to the construction of the canal, the rise of

nearly two feet in the water level was due in the main to obstructions caused by both the canal and the railway, and that consequently the water in the wells was only a short distance below the ground level. Further, the wells were generally brackish, the street gutters and drains were very defective and none of the sullage reached a distance of more than forty or fifty yards from the town. The real remedy, it was clear, lay in the improvement of the internal drainage and the protection of the water supply; and a scheme was drawn up for the reconstruction of the drains and the provision of outfalls into the Jenkinson cut and the Jor, both of these being cunetted for a distance of 1,000 feet so that the sullage might have no effect on the drinking water. The partial responsibility of Government on account of obstruction was admitted, and a grant of Rs. 20,000 was made. The detailed project was sanctioned in 1904 at an estimated cost of Rs. 50,000, the balance to be furnished from municipal funds. Construction commenced in 1905-06 and Rs. 54,797 had been expended by 1908.

The town has a picturesque appearance, but most of the streets are mean and unmetalled, though great improvements have been effected in this direction of late years. There are four bazars, known as the Bara, Chhota, Bahra and Sathattar, in which a considerable trade is carried on. Deoband is celebrated for its manufactures of *gara* cloth and more especially of blankets, which are exported to distant parts. It is also a trade centre of great importance, particularly for grain, sugar and oilseeds, which are brought in from the neighbouring villages and pass out again to wholesale merchants. Messrs. Ralli Brothers and others generally have agents here during the wheat-exporting season.

The public buildings of Deoband include the tahsil, the munsif's court, the registration office, the police station, the dispensary, the post-office and the cattle-pound. There is a large *sarai* near the station and an old military encamping-ground on the Muzaffarnagar road to the south-east. The chief educational institution is the Arabic school, founded about thirty years ago as an off-shoot of the now defunct Ajmer Gate College at Dehli, where many Musalman gentlemen of the last generation received their education. The Deoband school is well known all

over India, and pupils come hither from such distant parts as Afghanistan, Bukhara and Samarkand in one direction and from Madras and Eastern Bengal on the other. The Nizam of Haidarabad is one of the subscribers, as also was the late Begam of Bhopal. The school is devoted entirely to eastern learning and Musalman theology. It is regarded with antagonism by the Sufi sect, which is strongly represented in Deoband; and not long ago a petition was presented for permission to institute proceedings against the school committee for malversation of *waqf* funds, but was rejected as not being representative of the community. There is also a tahsili school, as well as an anglo-vernacular school started by Babu Kishan Sewak Lal, a munsif of Deoband, a municipal primary school, an aided Sanskrit *pathshala*, an aided school for girls and 23 indigenous schools, mostly of an ephemeral nature and very small attendance.

Deoband was first brought under the operations of Act XX of 1856 in 1860, and in 1868 it was raised to the status of a municipality.* The present board consists of eleven members, nine of these being elected, inclusive of the chairman. The income is derived mainly from an octroi tax on imports, supplemented by a tax on grainpits, the rents of shops and houses, the proceeds of the cattle-pound and other sources. The chief items of income and expenditure for each year since 1890-91 will be found in the appendix.† Considerable trouble has been caused from time to time by the general apathy of the elected members, especially with regard to sanitation and smuggling. The latter is very prevalent, though the Musalman population is poor, and the recognised standards of consumption are probably too high.

DEOBAND *Pargana*, *Tahsil* DEOBAND.

This pargana occupies the southern and south-eastern portions of the tahsil, and comprises a stretch of country about 18 miles broad from east to west and some eight miles from north to south, extending from the borders of Rampur on the west to those of Manglaur on the east: to the north lies pargana Nagal and to the south of Muzaffarnagar district. The total area is 86,265 acres or 134·8 square miles.

---

* Notification No. 412 of 27th January 1868. | † Appendix, table XVI.

In most respects the tract resembles Nagal, being included in the central upland plain of the district. Through the western half flows the river Hindan in a winding and irregular course. On either side the banks are high and sandy, while the bed contains a large amount of alluvial *khadir*, though this is much less fertile than in the upper course of the stream. West of the Hindan, in the tract known as the Katha, flows a small stream called the Kali, which rises in pargana Rampur and joins the former river a short distance beyond the district boundary. It has a fairly deep and well-defined bed, with a narrow *khadir* of little value. The eastern half of the pargana is drained by the Kali Nadi, which flows southwards in a deep channel flanked by high and sandy banks scored with numerous ravines. On the southern boundary, near the village of Mahtauli, it is joined by the Sila, a large watercourse with high and well-defined banks of a very similar nature. Mention should also be made of the Imlia, a small stream that originates at Isarpur, to the south of Deoband, and passes southwards into Muzaffarnagar through the large village of Rankhandi. Though only of little size, its volume has been increased by the construction of a cut that carries off much of the drainage from the town of Deoband; so that in the rains it attains large dimensions, with the result that the land along its banks has in many places become saturated and a certain amount of lowlying ground has been thrown out of cultivation. Except in the immediate vicinity of Deoband itself, the natural drainage of the pargana is quite satisfactory. The soil west of the Hindan is a good loam, in a very high state of cultivation; but east of that river the sandy belt extends inland for a considerable distance, gradually passing into a light loam which continues as far as the banks of the Kali Nadi. This tract has the benefit of irrigation from the Deoband branch canal, which was constructed during the famine year of 1877 and has largely contributed to the security of the pargana. In former days it suffered severely in seasons of drought, the only available canal irrigation being that afforded by the Kallarpur distributary of the Jumna canal in the extreme south-west and the right main distributary of the Ganges canal in the small area east of the Sila. The Deoband branch enters the pargana at

Jalalpur on the northern border, and curves in a south-westerly direction to Bhaila on the road from Deoband to Gangoh. Thence it flows southwards at Muzaffarnagar, giving off the Bastam distributary and some minor branches. The benefit of the canal has been most marked in the high plateau between the Hindan and the Kali Nadi, which formerly depended on wells and natural sources, both of these being very scarce in spite of the comparative height of the water-level. The light soil along the Hindan is capable of producing good crops when irrigated, and such irrigation can be effected only by the canal. On either bank of the Kali Nadi is a narrow and somewhat vaguely-defined strip of poor soil, often degenerating into ravines and barren waste. Beyond this on the east, as far as the Sila, stretches a level tract of excellent quality, but on either side of the latter stream there is a good deal of light and sandy ground.

Save in the Gujar villages the standard of cultivation is high, and the pargana has long attained an advanced stage of development. In 1866 the area under cultivation amounted to 67,222 acres and by the time of the last revision the total had risen to 69,838 acres, while subsequent years have witnessed a further increase, the average for the five years ending in 1906-07 being 73,336 acres, or no less than 85·01 per cent. of the entire area, a proportion which is exceeded only in Nagal. Added to this, 19·64 per cent. of the cultivation bears a double crop. Of the remainder, 6,469 acres or 7·5 per cent. are classed as barren, though this includes 2,612 acres under water and 3,100 acres occupied by villages, roads and the like, the rest being of little account. The so-called culturable area is relatively the smallest in the district, averaging 6,449 acres; and even this includes 1,432 acres of grove land and 2,058 acres of current fallow, so that very little room remains for further expansion of tillage, the soil in the available area being generally too poor to admit of profitable cultivation.

The *rabi* is the more important harvest, averaging 47,725 acres as against 39,827 sown in the *kharif*. Of the former no less than 62·55 per cent. is taken up by wheat, while this crop in combination with gram or barley covers an additional 6·53 per cent. For the rest, gram occupies 25·32, barley 3·38 and

the two in combination ·43 per cent., the other crops being quite unimportant. Of the autumn staples *juar*, either sown alone or mixed with *arhar*, accounts for 33·56 per cent. of the total *kharif* area, the proportion being much above the district average, and then follows rice with 24·24 per cent., slightly more than half of this being of the late or transplanted variety. Sugarcane with 11·39, *bajra* and *arhar* with 7·53, cotton and *arhar* with 4·75 and maize with 3·3 per cent. constitute the bulk of the remainder. As a matter of fact the amount of *arhar* in Deoband is comparatively small, and it invariably takes a subsidiary place. The pargana is celebrated for its sugarcane, which is very widely grown, and especially for the small but valuable variety known as *dhaunlu*. It is noteworthy that *kusum* or safflower, which once was produced in large quantities, is now unknown, the dye having been supplanted by foreign aniline products. Means of irrigation are generally abundant, and the pargana has benefited largely by the construction of the Deoband branch canal which now commands almost all the country east of the Hindan. A few villages in the extreme south-west are fed from the eastern Jumna canal, but most of the Katha depends on wells. On an average 28·35 per cent. of the cultivated area is irrigated, though the proportion varies with the nature of the season, and 89·38 per cent. of this is supplied from canals, 8·62 per cent. from wells and only 2 per cent. from tanks and streams.

The Rajputs of the Katha and other parts are the strongest body of cultivators, and next in order come Tagas, followed by Garas, Gujars, Sainis and Brahmans. Generally speaking, Rajputs and Gujars are among the least industrious of the cultivating castes; but this is not always the case, for nowadays the cultivation is almost everywhere careful, and there are few villages which can be said to be really neglected. In 1906-07 the total area included in holdings was 75,806 acres, and of this no less than 49·61 per cent. consisted of *sir* or *khudkasht*, the bulk of the land being in the possession of coparcenary communities. Ex-proprietors held 3·08, occupancy tenants 16·49 and tenants-at-will 30·01 per cent., the small remainder being rent-free. The present occupancy area is 12,502 acres, as

compared with 15,453 in 1886 and 10,612 twenty years earlier. Rents are paid mainly in cash, the grain-rented area being but 1,147 acres, though at the last settlement it was 5,298. The average rent rate is Rs. 4-8-6 for occupancy holdings and Rs. 7-1-1 for tenants-at-will: both are well above the general rate for the district and have risen rapidly of late years, since in 1886 the corresponding amounts were Rs. 3-3-9 and Rs. 4-6-7 per acre.

The revenue demand of successive settlements, as well as the present figure and its incidence, will be found in the appendix.* There are nine *mahals* on the alluvial register, and these were last assessed in 1906-07 at Rs. 3,522. Altogether the pargana contains 132 villages, which are now divided into 326 *mahals.* The latter comprise 26 held in single and 55 in joint *zamindari* tenure, 25 perfect and 31 imperfect *pattidari* and 189 *bhaiyachara.* There are few large proprietors, the chief being the Rani of Landhaura and Khan Sahib Muhammad Naim Khan of Kailaspur: but Mahajans have latterly increased their possessions at the expense of the cultivating communities. The Rajputs hold about 60 villages and at the last settlement owned 27·7 per cent. of the area. Next followed Mahajans with 19·2, Tagas with 17·3, Sheikhs with 11·2, Gujars with 8·9 and Garas with 5·3 per cent., the rest being owned chiefly by Brahmans and Pathans. The Sheikhs are the descendants of the notorious Sheikh Kalan and reside in Rajupur, while most of the Mahajans and the Misra Brahmans belong to the town of Deoband. There is a large revenue-free area of 5,207 acres, consisting of portions of several villages assigned in perpetuity to religious endowments.

Deoband was the capital both of a pargana and of a *dastur* or district in the days of Akbar, but its area at that time appears to have been much larger than at present, since it was reduced in the days of Najib-ud-daula by the constitution of Katha as a separate subdivision and has since undergone many other changes of importance. In 1841 eleven villages were transferred to the Muzaffarnagar district and four were received in exhange, the actual result being a considerable gain. In

* Appendix, tables IX and X.

1855 the Nagal pargana was formed, mainly from Deoband, which then lost 113 villages, while 21 were assigned to Haraura, two to Manglaur and one each to Rampur and Bhagwanpur. On the other hand 20 villages were restored from Katha, now abolished, and three from Rampur, leaving a total of 121, while the net loss by this transaction was 61,945 acres.

The population was 73,994 in 1865 but fell to 69,430 in 1872 owing to famine and other causes. In 1881 it had risen with great rapidity to 78,219; but ten years later a decline was again observed, the total being 75,618. In 1901 all previous records were surpassed, the number of inhabitants having risen to 81,652, of whom 37,431 were females. Classified by religions there were 54,642 Hindus, 25,965 Musalmans and 1,045 others. In addition to the municipal town of Deoband the pargana contains several large villages such as Rajupur, Rankhandi, Ambahta Sheikha, Jarauda Pande and Jarauda Jat.

Means of communication are but fair, for though the North-Western Railway traverses the centre from north to south, passing through the station of Deoband and possessing another at Rohana in Muzaffarnagar close to the southern borders of the district, the roads are very few and unmetalled. That from Saharanpur to Meerut follows the line of railway and is joined at Deoband by the roads from Manglaur on the north-east, from Bijnor by way of Barla and Bhukarheri on the south-east and from Gangoh on the west, the last being connected with Rampur by a branch taking off at Badgaon. The western half of the pargana thus possesses but a single road, so that the villages on the southern and northern borders suffer to some extent from their inaccessibility.

DEOBAND *Tahsil.*

This tahsil occupies the south-central portion of the district, being bounded on the north by Saharanpur, on the west by Nakur, on the east by Roorkee and on the south by the Muzaffarnagar district. It comprises the three parganas of Deoband, Nagal and Rampur, each of which forms the subject of a separate article. Generally speaking, the entire area belongs to the upland tract, the high level being varied only by the depressions

along which flow the rivers and streams. These include the Kali Nadi and its affluents in the east, the Hindan in the centre and the tributaries of the latter, known as the Kali and the Kirsani, in the west. Along the western boundary runs the eastern Jumna canal, irrigating pargana Rampur and a portion of Deoband, while the centre and east are watered by the Deoband branch of the Ganges canal, which traverses the south-east of Nagal and then turns southwards through pargana Deoband into Muzaffarnagar. The total area of the tahsil is 246,131 acres or 384·58 square miles.

Successive enumerations have exhibited constant fluctuations in the number of inhabitants. In 1853 the tahsil had a population of 194,451 persons, and this rose to 204,517 in 1865, but dropped to 198,693 in 1872. A marked increase was observed in 1881, when the total had risen to 211,058, but it again fell to 205,627 ten years later. At the last census of 1901 a very rapid advance was observed, for the tahsil contained 220,152 inhabitants, of whom 101,132 were females. Hindus predominate to a greater extent than in any other part of the district, numbering 164,191 as compared with 53,010 Musalmans, 1,568 Jains, 809 Aryas, this being a larger figure than in any other tahsil, 559 Christians and 15 Sikhs. The principal Hindu castes are Chamars, who numbered 36,222; Gujars, 14,180; Brahmans, 13,944; Rajputs, 13,072; Kahars, 11,398; and Bhangis, 9,699. In addition to these there are large communities of Tagas, Banias, Malis, Sainis, Kumhars, Barhais, Gadariyas and Jats. Three-fourths of the Rajputs belong to the Pundir clan which is settled mainly in the tract known as the Katha, comprising the western half of the tahsil, while the remainder is made up chiefly of Chauhans, Tomars and Gahlots. The Musalman inhabitants are principally Telis and Garas, followed by Julahas, Sheikhs, converted Rajputs, Nais, Gujars, Pathans and Saiyids. The lower orders greatly preponderate in number, while among the higher classes no particular clan or subdivision is of any special prominence in this tahsil.

According to the census returns only 48·8 per cent. of the people were directly dependent on agriculture as a means of

subsistence, though the actual number is probably greater, since many persons cultivate the land in addition to some other occupation. About 12 per cent. come under the head of general labour, and next follows service, whether domestic or public. Nearly 7 per cent. of the people are engaged in the weaving industry, which is of considerable importance, and 5 per cent. obtain a livelihood from the supply of food and drink. Mention may be made of work in leather and wood, and also of the pastural community, the tahsil being noted for its sheep and the blankets made from their wool. The low proportion of agriculturists is due in large measure to the presence of the considerable town of Deoband, which is an important commercial centre. Rampur too is a place of some size, and it is likely to increase now that it has the benefit of railway communication; but apart from these the few large villages are purely agricultural in character.

Means of communication are fair, though the tahsil is destitute of metalled roads. It is traversed from north to south by the North-Western Railway, which passes through Nagal and Deoband, having a station at each place. The light railway from Saharanpur to Shahdara traverses the centre of pargana Rampur, with stations at Rampur and Nanauta. Parallel to this line runs the road to Shamli in Muzaffarnagar, with branches from Rampur to Ambahta and Badgaon. At Nanauta the road crosses that from Gangoh to Badgaon, Deoband and Manglaur, meeting the road from Saharanpur to Muzaffarnagar at the tahsil headquarters. Other roads run from Deoband to Bijnor, from Nagal to Gagalheri and from Lakhnaur on the Saharanpur road to Manglaur. The absence of roads is most marked in pargana Nagal, where the Hindan and Kali Nadi present a great obstacle to cross-country communication. The other parganas are moderately well supplied with roads, and also have the advantage of the paths along the banks of the main canal. Bridges are few in number and generally the passage of the rivers has to be effected by fording, though during the rains ferries are maintained on the principal roads. A list of these ferries will be found in the appendix, where also are lists showing the post-offices, schools, markets and fairs of the tahsil.

Deoband forms a subdivision of the district in the charge of a full-powered deputy magistrate and collector. The tahsildar is stationed at Deoband, where there is also an honorary magistrate's court, though the bench no longer exists. The civil jurisdiction is entrusted to the munsif of Deoband, appeals lying to the district judge of Saharanpur. Under existing arrangements there are police stations at Deoband, Badgaon, Nagal and Rampur but their circles do not coincide with the limits of the tahsil, since the jurisdiction of the Nagal *thana* extends into pargana Haraura, while parts of the Rampur circle lie in the Saharanpur and Nakur tahsil,

---

FAIZABAD, *Pargana* FAIZABAD, *Tahsil* SAHARANPUR.

The village of Faizabad, though giving its name to a pargana, is an insignificant place standing in 30° 19′ N. and 77° 35′ E., on the left bank of the Budhi Jumna, at a distance of 28 miles from Saharanpur, and three miles west of Badshahibagh on the Chakrata road. The place itself possesses nothing of interest. In 1901 it contained but 676 inhabitants, mainly cultivators; the lands of the village are 2,762 acres in extent, but little more than one-third of this is cultivated. The revenue is Rs. 1,100 and the proprietors are the Messrs. Powell. There is an aided school here, and a canal bungalow utilised for the inspection of the supplementary intake from the Jumna and the dam erected across the Budhi Jumna in 1843.

A short distance to the north of Faizabad stands the Badshahi Mahal, a place originally built by Shahjahan and afterwards restored by Ali Mardan Khan. Little of the old structure remains and the building is of small architectural interest, though originally it must have been fairly large and handsome. Along the banks of the river are the remnants of a fine terrace, while everywhere are to be seen foundations of rooms and outhouses, together with the masonry water channels that supplied the gardens.

FAIZABAD *Pargana, Tahsil* SAHARANPUR.

This pargana occupies the north-western corner of the tahsil and district, extending westwards from Muzaffarabad to the

Jumna, beyond which lies the Umballa district of the Punjab, the boundary being a line demarcated in 1888 and roughly following the easternmost channel of the river. To the south is pargana Sultanpur, while on the north the high ridge of the Siwalik chain separates this district from Dehra Dun. The total area is 84,243 acres or 131·63 square miles, but this excludes all the hilly portion comprised in the reserved forest.

At the foot of the hills lies the submontane tract known as the *ghar*, in which the ground slopes rapidly to the south, the drainage being carried into the Jumna by means of numerous torrents. These are often of considerable size, and though dry for the greater part of the year, carry a large volume of water during the rains and are apt to do much damage by erosion or change of course, the mischief having become more pronounced since the disappearance of the forests. Much of the *ghar* is still occupied by thorn and scrub jungle, but the cultivated portion exhibits a high degree of fertility, though the soil is generally a thin deposit of a light character resting on a substratum of stone and boulders. Water is ordinarily unprocurable and wells, even for drinking purposes, are rare; but the rainfall is heavy, and in favourable seasons good crops are raised with little labour. The population is necessarily sparse, and the cultivators usually collect round the wells, to the detriment of the outlying fields. Mud houses are rare, and the people live almost invariably in wattle huts which are very liable to destruction by fire. Near the forests too cultivation is somewhat precarious owing to depredations of wild animals.

This submontane belt occupies the greater part of the pargana. It is traversed by a large number of torrents, which unite near the foot of the hills to form three or four principal drainage channels. The first is the Gojra Rau, and next come the Badshahibagh Rau, fed by the Andharia; the Raipur torrent, formed by the union of the Chapri, Pajna and other streams; the Naugaon Rau, of which the principal affluents are the Khaironwala, Barkala and Kasumri; and lastly the Maskara, which just touches the south-eastern corner. These torrents are carried across the eastern Jumna canal by means of important and costly engineering works, and then lead through the low *khadir*

to the Budhi Jumna, an old channel of the river utilised in its upper reaches by the canal as far as the Nayashahr regulator. The *khadir* in this pargana is not so clearly defined as in the Nakur tahsil to the south. There is a considerable expanse of low swampy ground on the southern border extending into Sultanpur, but elsewhere the soil is a light though fertile alluvium, merging into sand on the banks of the watercourses. Irrigation is obtained from wells, supplemented by the Raipur and other small distributaries of the canal. The only difficulties in the matter of drainage have arisen from the use of the Naugaon and other torrents as canal escapes. This caused extensive flooding and saturation in the southern *khadir*, but the situation was relieved by improvement of the channels and the excavation of cuts leading into Sultanpur and the Maskara.

Considering its natural disadvantages the pargana has attained a very fair standard of development, and this is especially the case in the south-east corner. In 1866 the cultivated area was 45,226 acres, and at the last assessment it had risen to 51,132, illustrating the manner in which the jungle had been cleared. Recent years have witnessed a further increase, and the present average is 54,566 acres or 70·87 per cent. of the whole pargana, excluding the reserved forest as before. There still remains a certain area of inferior jungle and grazing land, 8,735 acres or 11·35 per cent. being classed as culturable, though this includes 1,229 acres of current fallow and 512 acres of groves. The barren area is unusually large, averaging 13,690 acres, and of this 10,993 acres are either under water or else included in the river and torrent beds, and 2,319 acres are taken up by village sites and the like. This leaves a very small amount of actually sterile land, though much of the culturable waste is little superior. Practically all the irrigation is derived from the small branches of the canal, for in the north the water level is too deep for the construction of wells, while in the south irrigation is seldom required. The average area irrigated is 2,500 acres or 4·58 per cent. of the net cultivation, and of this 94·64 per cent. is supplied by the canal, ·88 per cent. from wells and the remainder from streams which are to some extent utilised in the lowlands.

The areas shown for the two harvests are approximately equal, though formerly the *kharif* predominated. The change is due to the extension of the double-cropped area, which now averages 20,741 acres, or no less than 38 per cent. of the land under tillage, a proportion which is far higher than that recorded in any other pargana of the district. Out of a total *rabi* area of 37,940 acres 45·15 per cent. is under wheat and 33·48 under gram, while the former in combination with barley and gram makes up 7·04 and barley 4·35 per cent., the other products being *masur* and oats which are here grown to a large and increasing extent. In the *kharif*, which averages 37,157 acres, maize takes the lead with 37·34 per cent. followed by *bajra* with 17·73, *juar* with 16·59, cotton with 13·87 and rice with 7·11 per cent., the last being almost wholly of the early variety. There is very little sugarcane, which averages but 3·58 per cent. and the area appears to be decreasing.

Among the cultivators of the pargana Gujars largely preponderate, and after them come Garas, Sainis, Chamars, Rajputs and Chauhans. There is relatively little proprietary cultivation, as is also the case in Muzaffarabad, for out of a total area of 56,330 acres included in holdings in 1906-07 only 14·99 per cent. was recorded as *sir* or *khudkasht*. Of the rest 15·09 per cent. was held by occupancy tenants, the area being 8,498 acres as compared with 9,995 at the last settlement and 15,004 twenty years earlier. The decline has been more marked than elsewhere for probably in no other part of the district have the landlords more vigorously striven to prevent the accrual of occupancy rights. Tenants-at-will held 68·44 and ex-proprietors ·52 per cent., the remainder being rent-free. A large area is still held on grain rents, amounting to 12,750 acres, though there has been extensive conversion since the settlement, when 21,004 acres were thus recorded. With the extension of the cash-rented area there has been a general rise in rates, the present figures being Rs. 3-11-8 for occupancy holdings and Rs. 5-2-2 per acre for tenants-at-will, as compared with Rs. 3-5-5 and Rs. 3-14-11 respectively in 1886.

The fiscal history of Faizabad is illustrated by the results of successive settlements, as shown in the appendix.* The demand

* Appendix, tables IX and X.

is apt to vary on account of the 46 alluvial *mahals*, which were last assessed in 1904 at Rs. 5,772. The pargana contains 175 villages at present subdivided into 294 *mahals*, of which 37 are owned by single proprietors, 65 are joint *zamindari*, 15 are *bhaiyachara*, 39 are perfect and 138 imperfect *pattidari*. Transfers have been very numerous, especially at the expense of the Rajputs, and Mahajans at the last settlement owned 25·6 per cent. of the area, though much of this was acquired at an early date in the shape of jungle grants. Next come Rajputs with 21·8, Gujars with 18, Europeans with 17·1, Pirzadas with 7·1 and Saiyids with 2·7 per cent., no other caste being of any importance. The chief proprietors are the Powell family, the Rani of Landhaura, the Musalmans of Behat and Kunjpura and the Mahajans of Jagadhri and Saharanpur.

The population of the pargana numbered 33,980 souls in 1853, but two years later the boundaries were greatly altered and by 1865 the total had risen to 40,610. It has since increased steadily, rising to 42,882 in 1872, to 48,623 in 1881, and to 50,760 in 1891. At the last census Faizabad contained 55,915 inhabitants, of whom 26,416 were females. Classified by religions there were 32,352 Hindus, 23,373 Musalmans, and 190 others. The villages are generally of small size and the only places with more than two thousand inhabitants are Behat and Mirzapur, the next being Raipur with a population of 1,821 persons. The trade of the pargana is insignificant, owing to its natural position and the lack of communications. The latter are confined to the metalled road from Saharanpur to Chakrata, passing through Behat, Mirzapur and Badshahibagh and crossing the Siwaliks by the Timli pass, and the submontane road from Khara to Mohand and Hardwar, skirting the southern edge of the forest. West of the former roads are non-existent, and progress through the low ground towards the Jumna is rendered extremely difficult by the numerous torrent beds that are encountered.

In early days the pargana was called Raipur Tatar, deriving its name from the village of Raipur; but the area was small, the southern portion being included in Behat Kanjawar. The name

was changed to Faizabad when Shahjahan built his hunting seat at Badshah Mahal, and the new town is said to have been made the capital of a *sarkar* in spite of its inconvenient position. In 1842 the area was extended by the inclusion of villages from the abolished parganas of Patehar and Jahangirabad, though at the same time several villages were transferred to Muzaffarabad. In 1855 Behat was absorbed in the surrounding parganas and of its 91 villages 25 were assigned to Faizabad, while three were added from Sultanpur and one was given to Saharanpur. This left Faizabad with 104 villages, the net result of the exchanges being a gain of 16,589 acres.

FATEHPUR, *Pargana* HARAURA, *Tahsil* SAHARANPUR.

A village in the north-east corner of the pargana, standing in 30° 2′ N. and 77° 46′ E., on the west side of the metalled road from Saharanpur to Mohand and Dehra, at a distance of fifteen miles north-east from the district headquarters, and fifteen miles from Roorkee by a second metalled road which joins the former a mile south of the village. The old mail line here goes eastwards to Kheri on the other side of the Solani, but this route has long been abandoned. A branch road runs north-west through the village to Khujnawar and Muzaffarabad. Fatehpur is one of the stages on the Dehra road, and possesses an encamping-ground near the village and some little distance to the west of the road; but the dak-bungalow has been converted into an inspection-house. In addition the place contains a police station, a post-office and a cattle-pound, though under the new scheme the *thana* will be closed and its circle amalgamated with Mohand. The village of Fatehpur stands on the high bank that marks the eastern edge of the uplands, and the soil is light and inferior: the area is 1,737 acres, but the revenue is only Rs. 950, the proprietors being a *pattidari* community of Garas. The population in 1901 numbered 1,056 souls, including 692 Musalmans.

GANGOH, *Pargana* GANGOH, *Tahsil* NAKUR.

The old town of Gangoh stands in 29° 47′ N. and 77° 16′ E., on the south side of the road from Saharanpur to Karnal, at a

distance of ten miles south from Nakur and 27 miles from the district headquarters. Through the town runs a road from Nakur to Nanauta and Deoband, with a branch leading southwards to Titron. The surrounding country lies low, and to the south-west is a large *jhil* which in abnormally wet years has done considerable damage, especially in the western portion of the site. In 1900 about 120 houses were destroyed in this manner, and to relieve matters it was resolved to partially drain the depression by the excavation of a cut into the Saindli, following the line of the Lakhnauti and Karnal road. The town lands are unusually extensive, covering no less than 4,080 acres of which 1,298 acres are revenue-free, while on the rest the demand is Rs. 4,615. The proprietors are Saiyids and a very large and impoverished community of Gujars. A noticeable feature of the place is the number of groves which surround the site and cover more than 130 acres: they are principally of mangoes, but there is a good proportion of *jaman*, *shisham*, *siras* and other trees.

The foundation of Gangoh is attributed to a Raja Gang, of whom nothing is known. The place is of some antiquity, as the site is well raised, and in the centre is a large mound, once a fort, but now occupied by the school buildings. The eastern portion is the older, for the western quarter, known as the Sarai, was built by the celebrated saint Shah Abdul Quddus in 1527. In this *muhalla* are three large *maqbaras* surrounded by a number of smaller tombs. The most important is that of Abdul Quddus himself, built by Humayun in 944 H., while others include those of his sons, Sheikh Ahmad and Sheikh Rukn-ud-din. The tomb of the saint is still an object of pilgrimage, and on the *urs* or anniversary of his death a large assemblage of the faithful takes place there. His descendants are known as Pirzadas, and are principally followers of the Wahabi sect: they own a considerable amount of land, and are the leading Musalmans of these parts. In the same *muhalla* are several mosques, the chief or Jami Masjid having been erected in 963 H. during the reign of Akbar; while the Reri mosque was built by Jahangir in 1034 H., and the Lal Masjid owes its origin to Faqir Nur Muhammad in 1081 H. The subsequent history of Gangoh is unimportant, at any rate till the time of the Mutiny. Then it

was constantly threatened by the Gujars who were led by one Fathua, who set himself up as Raja in Budhakheri and was responsible for the destruction of Nakur. Reinforced by the Rangars of the neighbourhood, he offered resistance to a force under Mr. H. D. Robertson and Lieutenant Boisragon, but was severely defeated and was pursued to Kunda Kalan in the extreme south-west of the pargana, that place being captured and burned. The object of the insurgents was to attack Lakhnauti and Gangoh at the instigation, it is said, of the Musalmans of Ambahta and Nakur, who had incited the Gujars with promises of plunder and the destruction of bonds and records of debt, and also with the hope of regaining their traditional influence. The Rangars, on the other hand, were urged on by the desire of restoring a purely Musalman rule and fought bravely against the troops, giving and receiving no quarter.

Since the Mutiny Gangoh has greatly increased in size. The population, which had numbered 6,260 in 1847 and 9,902 in 1853, had risen in 1865 to 10,899, in 1872 to 10,982 and in 1881 to 12,089. Then it remained stationary for a time, the total being 12,007 in 1891: but at the last census the town contained 12,971 inhabitants, of whom 6,371 were females. Classified by religions there were 7,172 Musalmans, 5,741 Hindus and 58 of other religions. Banias and Gujars are the prevailing Hindu castes, the former monopolising the trade, which is mainly confined to grain and sugar and is of no great importance. Markets are held daily in the bazar, but the largest gathering is on Saturday in each week. The houses are chiefly of mud, and the streets and bazars of the place are narrow and tortuous: but most of them are paved and drained, while a number of substantial brick houses are owned by the trading community. Though the Gujars are generally in reduced circumstances, the place has a fairly flourishing appearance, and is the cleanest and best kept of all the Act XX towns in the district. Gangoh possesses a police station, a post-office, an inspection bungalow and a dispensary situated by the side of the Saharanpur road. The middle vernacular school is a very prosperous institution, while in addition to this there is a large aided school for boys and two girls' schools, one of which is aided and the other maintained by the district board.

Since 1860 the town has been administered under Act XX of 1856. The returns for 1907, which are practically identical with those of the four preceding years, show a total of 4,218 houses, of which 2,741 were assessed to taxation, the receipts from the house-tax being Rs. 3,150 and giving an incidence of Re. 1-2-4 per assessed house and Re. 0-3-10 per head of population. The total income, including the initial balance and miscellaneous items, was Rs. 3,639, while the expenditure was Rs. 3,176. Of the latter Rs. 1,396 were devoted to the maintenance of a force of twenty *chaukidars*, Rs. 1,062 to the pay of public sweepers, and Rs. 400 to local improvements. The provisions of the Village Sanitation Act, 1892, have been applied to the town.

GANGOH *Pargana, Tahsil* NAKUR.

This is the southernmost pargana of the tahsil and occupies the south-western corner of the district, being bounded on the north by Nakur, on the east by Rampur, on the south by Muzaffarnagar and on the west by the Jumna, the deep stream of which forms the boundary between this district and Karnal. The area is liable to vary from year to year by reason of changes in the river's course: the average for the five years ending in 1907 was 84,670 acres or 132·29 square miles.

The natural subdivisions of the pargana correspond to those found in the rest of the tahsil. The *khadir* area is, however, more narrow than in the north, and the high bank, close beneath which flows the Saindli, is seldom as much as three miles distant from the Jumna except in the extreme south, where the Saindli cuts across the lowlands to join the main river and the high bank recedes inland, leaving a stretch of swampy and almost useless land, largely covered with jungle and possessing a stiff but unfertile clay soil, always liable to damage by inundations during the rains. The place of the Saindli is here taken by the Khokri, a small stream that passes southwards into Muzaffarnagar. The *khadir* proper, west of the Saindli, is a mixture of good alluvial soil, producing excellent crops of maize and sugarcane, with practically barren sand or tamarisk jungle. Irrigation is seldom required, but can be effected with ease. The

western uplands are a somewhat inferior tract with a poor sandy soil on the high bank, though it gradually improves as the distance from the river increases. The country is in a very backward state, both in its general development and in the quality of the crops; but this is due rather to the character of the cultivators than to any inherent disadvantages of soil and climate. The towns of Gangoh and Lakhnauti are the homes of overgrown proprietary bodies, for the most part in very reduced circumstances and too proud or too apathetic to work with their own hands. The rest of the area is held by Gujars, who are not only bad agriculturists, but to this day retain their old addiction to cattle-lifting. It is still common to find *languri* or blackmail levied for the restoration of stolen cattle, and crime can be repressed only by the rigorous application of the preventive sections of the Code of Criminal Procedure. Added to this the soil is somewhat poor and requires close attention, while the means of irrigation are scanty. This tract terminates on the east in the valley of the Katha, an inefficient drainage line, of which the natural incapacity to perform its functions has been enhanced by the construction of drains from the old bed of the Jumna canal and from the Andauli swamps in the south-east. There is much saturation, in spite of the large sums that have been expended on the improvement of the stream, and large areas of unreclaimed waste are to be seen on the left bank of the stream. The moist lands, however, though to some extent precarious, are valuable for the rice they produce; and the appearance of *reh* at Fatehchandpur and elsewhere is not so marked as it was twenty years ago. In the extreme east the level rises towards the canal, and there is a narrow belt of villages possessing a rich soil, equal to any in the district, with the advantages of irrigation from the Hangoli and Papri distributaries and from numerous wells. The cultivators are mainly Gujars, but they differ greatly from their kinsfolk in the west and have become peaceful and prosperous, a result that can only be ascribed to the influence of the canal.

Owing to its natural conditions, and also to the character of its inhabitants, the pargana is the most backward in the district except Jwalapur. In 1866 the area under cultivation

was 47,139 acres, rising at the last settlement to 51,508. The figure of the past five years show some improvement, the average being 52,979 acres or 62·57 per cent. of the whole. The area shown as actually barren covers 7,288 acres, but of this 2,639 are under water and 2,392 are occupied permanently by sites, roads and buildings, leaving 2,265 acres of unculturable waste in the shape of *usar*, swamps or sterile sand along the Jumna. As much as 24,402 acres or 28·82 per cent. of the whole is classed as culturable, though from this should be deducted 2,065 acre of current fallow and 570 acres grove land; the remainder is shown almost exclusively as old fallow, but most of this possesses little value and is hardly to be distinguished from barren waste, consisting largely of swamp, jungle or sand. In the *khadir* tract irrigation is seldom required, but can be obtained when necessary from unprotected wells. The upland portion is favourably situated in this respect and on an average 21,090 acres or 39·8 per cent. of the net cultivation, are irrigated, wells supplying 64·02, canals 32·87, and other sources 3·11 per cent., the minor streams being frequently utilised.

On an average 36,114 acres are shown for the *rabi* harvest and 28,324 for the *kharif*, while 23 per cent. of the net area under tillage bears two crops annually. Wheat is by far the most important staple, occupying 63·82 per cent. of the *rabi* area, while in combination with gram or barley it takes up an additional 6·73 per cent. Gram by itself is extensively grown, usually in succession to a *kharif* crop, and constitutes 18·91 per cent., and then follows barley with 4·77 per cent., *masur* and oil-seeds forming the bulk of the remainder. In the *kharif*, *juar* takes the lead with 28·6, and next in order come maize 20·72, rice with 17·18, almost wholly of the late variety, cotton with 8·22, *bajra* with 7·21 and sugarcane with 2·13 per cent., the last being the smallest proportion found in any pargana of the district.

Among the cultivating castes Gujars largely preponderate, and next come Sainis, Rajputs, Brahmans, Jats and Rors, the proportion of skilled husbandmen being lower than in any other part of the district. Much of the tillage is in the hands of proprietors, and in 1906-07 out of a total of 55,963 acres

included in holdings 34·17 per cent. was *sir* or *khudkasht,* while of the rest 5·09 per cent. was held by ex-proprietary tenants, the old cultivating communities having fared very badly, 11·94 by occupancy tenants and 47·97 per cent. by tenants-at-will, the small balance being rent-free. The occupancy area rose from 3,737 acres in 1866 to 9,389 at the last settlement, but has since undergone a remarkable decline, as the present figure is only 6,681 acres. Rents are paid in cash save in 2,251 acres, as compared with 7,035 twenty years ago, and the average rates are the lowest in the district, amounting to Rs. 3-5-0 per acre for occupancy holdings and Rs. 4-14-10 for tenants-at-will. Even so there has been a considerable increase since the settlement, when the recorded averages were Rs. 3-0-2 and Rs. 3-14-11 respectively.

The pargana is lightly assessed, though this was not always the case, as may be seen from the statements of the present demand and its incidence and of former assessments given in the appendix.* The total revenue is liable to vary owing to the fluctuating nature of the 17 alluvial *mahals,* last assessed in 1907-08 at Rs. 10,247. There are in all 121 villages subdivided into 187 *mahals,* of which 87 are held in *bhaiyachara* tenure, 22 are single and 12 joint *zamindari,* and 12 are perfect and 54 imperfect *pattidari.* An area of 3,288 acres is revenue-free, most of it consisting in Musalman religious endowments. Gujars are still the chief proprietary caste, though they have lost heavily to the money-lenders. At the time of the settlement they held 36·1 per cent. of the area, and after them came Mahajans with 20·5, Europeans with 10·5, Rajputs with 5·8 and Jats with 4·5 per cent., the remainder being owned principally by Sheikhs, Pathans, Brahmans, Rors and Kayasths. There are no large resident proprietors, and the chief landowners are the Messrs. Powell, Lala Dip Chand and other Mahajans of Saharanpur.

The pargana was in existence in Akbar's day, but the subsequent alterations of area have been extensive. In 1842 the old pargana of Lakhnauti was abolished, and 57 of its component villages were added to Gangoh. At the same time other additions were made, chiefly from Nanauta, while Jamalgarh,

* Appendix, tables IX and X.

separated from Gangoh by Jamal Khan, an officer of Najib-ud-daula, was assigned to Nakur and certain villages were given to Muzaffarnagar, the net result being a gain of 53 villages. Further changes took place in 1855, when the total number of villages was reduced to 117 and a loss of 25,817 acres was incurred; 52 villages were transferred to Nakur and seven to Rampur, while the former gave one and the latter eleven villages in return.

Consequently it is impossible to determine the population of the pargana at the first census in 1843. The next, that of 1865, showed a total of 53,100, which rose to 54,748 in 1872, and to 57,090 in 1881. The figure dropped in 1891 to 54,126, the pargana sharing in the depression experienced by the rest of the tahsil; but in 1901 Gangoh contained 58,404 inhabitants, including 27,412 females, while of the total 38,020 were Hindus, 20,074 Musalmans and 310 of other religions. A large proportion of the people is to be found in the three towns of Gangoh, Lakhnauti and Titron; besides these there is not a place of any importance, Sangathera alone possessing more than a thousand inhabitants. Means of communication are poor, especially in the *khadir* tract, and are confined to unmetalled roads. Through Gangoh and Lakhnauti passes the road from Saharanpur to Karnal, crossing the Jumna by the Begi ferry; and from Gangoh roads lead to Nakur on the north, to Titron and Muzaffarnagar on the south and to Deoband on the east, the last having a ferry over the Katha at Sangathera.

HARAURA, *Pargana* HARAURA, *Tahsil* SAHARANPUR.

This place, which was selected to give its name to the pargana formed in 1855 from villages of the surrounding subdivisions, stands in 29° 59′ N. and 77° 41′ E., on the north side of the metalled road from Saharanpur to Mohand and Dehra at a distance of nine miles east from the district headquarters. It is a small agricultural village of no importance or antiquity, and possesses nothing worthy of notice beyond a lower primary school. The population in 1901 numbered 1,197 persons of whom 694 were Musalmans; most of the latter are converted Rajputs of the Pundir clan, who hold the village in *pattidari*

tenure at a revenue of Rs. 2,050. They themselves cultivate a considerable proportion of the land, the remainder being held by tenants-at-will. The total area is 1,361 acres, and half of this is demarcated as alluvial lying in the valley of the Hindan, which flows close to the village site on the north. The upland portion, above the sandy bank of the river, suffers from deficient means of irrigation, the supply of water being confined to two small tanks.

HARAURA *Pargana, Tahsil* SAHARANPUR.

This pargana occupies the south-eastern portion of the tahsil, being bounded on the west by Saharanpur and on the north by Muzaffarabad, while to the east lies Bhagwanpur and to the south pargana Nagal of the Deoband tahsil. In point of size it is the smallest of the four which constitute the subdivision and has a total area of 68,604 acres, or 104·07 square miles.

The tract is for the most part of a remarkably homogeneous character. A small portion in the extreme north-east lies in the Solani *khadir*, below the high bank that separates the valley of the Ganges from the rest of the district. Along this bank the soil is of the usual light and sandy nature; but the rest of the area lies wholly in the central uplands and forms an almost level plain, sloping gently to the south, the surface of the country being broken only by the valleys of the rivers which carry off the drainage. The soil is principally a light and soft loam, better in the south than in the north, though this is principally due to the more backward state of cultivation in the latter portion. Occasionally the surface rises into small sandhills which mark the minor watersheds, while in the depressions the soil is a strong clay of great fertility when it obtains sufficient moisture. The chief river of the pargana is the Hindan, which enters it from Muzaffarabad and flows in a south-westerly course to meet the western boundary, thereafter separating Haraura from Saharanpur. The Hindan has a fairly broad and well-defined bed containing a small amount of alluvial soil, though in most places the land on its banks is too sandy to admit of cultivation. The river is fed by the Nagdeo, a small stream that rises in the Siwaliks and closely follows the Saharanpur boundary to its junction with

the Hindan; it carries an inconsiderable volume of water, and seldom damages the villages on its banks. The central and eastern portions of the parganas are well drained by three small streams which unite in the Nagal pargana to form the Kali Nadi. They have no distinctive names, and all take their rise close to the northern border. The easternmost of these streams generally constitutes the dividing line between Haraura and Bhagwanpur, and flows in a deep bed flanked by high and sandy banks; the second is similar, though considerably smaller; while the third has the longest course, but is an unimportant stream with a very shallow channel.

In its cultivation, as in its general characteristics, the pargana rather resembles Nagal and Deoband than the rest of the Saharanpur tahsil, and has attained an equally high standard of development. At the settlement of 1866 the area under cultivation was 52,387 acres, while at the last assessment it had risen to 57,056. Since that date a further increase has taken place, the present average, calculated from the returns of the five years ending in 1906-07, being 58,033 acres or 84·59 per cent. of the whole, a figure that is equalled only in the upland parganas to the south. Under these circumstances little room remains for further extension of tillage. Out of 4,579 acres or 6·67 per cent. returned as culturable, 884 acres were under groves and 1,897 were current fallow, while the rest was of too poor a description to repay cultivation. The barren area amounts to 5,992 acres, but of this 2,962 are covered with water and 2,557 are occupied by buildings, railways, roads and the like. There is no jungle, and the scattered patches required for grazing and other purposes are already too small for the needs of the tract.

On the other hand the standard of agriculture is not particularly high and means of irrigation are somewhat deficient, the nature of the subsoil precluding the extended use of unprotected wells. There are, however, numerous ponds or tanks from which water can be obtained, though they are liable to fail in years of drought. On an average only 4·38 per cent. of the cultivated area is irrigated, and out of an aggregate of 2,539 acres wells supply 55·57, tanks 27·88 and other sources 15·63 per cent., while less than a hundred acres is

within reach of a canal. Owing probably to this fact the *kharif* exceeds the *rabi* harvest in area, averaging 37,110 as against 31,419 acres: and 18·38 per cent. of the net cultivation bears a double crop, or very much less than in the other parganas of the Saharanpur tahsil. Among the autumn staples rice takes the lead, covering 21·16 per cent. of the area sown, about three-fifths being of the early variety. Next follow *juar* and *bajra*, in either case mixed with *arhar*, the proportions being 19·41 and 15·82 per cent. respectively, and then maize with 11·78, cotton with 6·99 and sugarcane with 6·38 per cent. The two last exhibit a marked decline of late years and have been largely replaced by maize, which has the advantage of being reaped early. In the *rabi* wheat takes the lead with 61·95 per cent. of the whole area, exclusive of 8·34 under wheat in combination with gram or barley. The latter, either alone or mixed with gram, makes up 3·87 and gram alone 18·27 per cent., the remainder consisting principally of *masur* and oats.

The cultivators of the pargana differ somewhat from those in the rest of the tahsil, being mainly Rajputs, Ahirs, Gujars, Garas, Tagas, Sainis and Brahmans. As in pargana Saharanpur, there is a good deal of proprietary cultivation, amounting in 1906-07 to 29·4 per cent. of the total area of 60,544 acres included in holdings. The extent to which the old communities have lost ground is illustrated by the fact that ex-proprietary tenants hold as much as 5·95 per cent., while for the rest 20·66 is cultivated by occupancy tenants and 43·1 by tenants-at-will, ·89 per cent. being rent-free. As usual, there has been some diminution in the occupancy area, which now amounts to 12,510 acres as compared with 14,347 in 1886 and 13,444 twenty years earlier. The grain-rented area has also decreased, for whereas it was 8,794 acres at settlement, it is now only 3,775 acres. Cash rents approximate closely to the general average of the district, the rates for occupancy and other tenants being Rs. 4-2-8 and Rs. 6-4-2 per acre respectively, while the corresponding figures at the last settlement were Rs. 3-6-10 and Rs. 3-15-8.

Tables given in the appendix show the revenue assessed at the first regular settlement and successive revisions, as well as

the incidence of the present demand.* The latter is liable to vary periodically on account of the alluvial *mahals*, which are 66 in number and were assessed at Rs. 9,543 in 1903. The pargana contains 139 villages, and these are now subdivided into 410 *mahals*, of which 41 are owned by single proprietors, 58 are joint *zamindari*, 75 are *bhaiyachara*, 26 are perfect and 210 are imperfect *pattidari*. Whereas between 1840 and 1860 the Rajputs lost about one-third of their ancestral estates, they have latterly maintained their ground, and at settlement held 22·8 per cent. of the land, though they have been displaced by Mahajans with 32 per cent. Next follow Pathans, principally the Kailaspur family, with 10, Gujars with 7·8, Tagas with 5·4 and Ahirs with 5·1 per cent. After the Kailaspur Pathans the chief resident proprietors are the Banias of Kota, while the only other large estate is that held by the widow of Lala Mitrsen of Saharanpur.

Haraura, like Nagal, is a new pargana, dating only from 1855, when 137 villages were taken to form the subdivision. Muzaffarabad contributed no fewer than 63, Roorkee 28, Saharanpur 23 and Deoband 21, while one in either case came from Faizabad and the abolished pargana of Jaurasi. The first census was that of 1865, when the pargana had a population of 52,485. A subsequent famine caused the total to fall to 45,444 in 1872, but since that time the increase has been well maintained, the figures being 57,766 in 1881 and 64,163 ten years later. In 1901 the number of inhabitants was 65,046 of whom 30,597 were females, the total including 42,851 Hindus, 22,086 Musalmans and 109 others.

There is no town in the pargana nor any large village save Kailaspur on the western borders and Bahera in the north-west corner, these being the only places with a population exceeding two thousand souls. Even these are mere agricultural settlements and possess no importance; and the same applies to the villages of Kota, Gandeora and Bhalswa, while Fatehpur is solely of note on account of its police station. The northern portion of the tract is ill supplied with means of communication, as also is the south-west corner. Through the centre runs the metalled road from Saharanpur to Mussooree, joined by that from Roorkee at Fatehpur; and from this two branches take off at Gagalheri,

* Appendix, tables IX and X.

leading to Nagal and Bhagwanpur. The south-eastern portion is traversed by the road from Saharanpur to Deoband, metalled up to Lakhnaur whence a branch goes to Manglaur. In addition to these, the Oudh and Rohilkhand Railway passes through the pargana from east to west, with a station at Balia Kheri and another at Chodiala, just beyond the eastern boundary. The main line of the North-Western system follows the Deoband road, but the nearest station is at Nagal.

HARDWAR, *Pargana* JWALAPUR, *Tahsil* ROORKEE.

The ancient and celebrated town of Hardwar stands in 29° 58′ N. and 78° 10′ E., in a beautiful situation on the right bank of the Ganges and at the foot of the Siwaliks, the mountain chain being here pierced by the great gorge by which the river debouches on the plains. It is approached by the Oudh and Rohilkhand Railway by means of a branch from Laksar constructed in 1886 and continued to Dehra in 1900. Parallel to the railway runs the road from Dehra, continuing in a south-westerly direction to Jwalapur and Bahadurabad, where it bifurcates; one branch leading to Roorkee, a distance of about 17 miles from Hardwar, and the other to Dhanauri, Bhagwanpur and Saharanpur, some 39 miles in all.

For municipal purposes Hardwar is united with the neighbouring towns of Jwalapur and Kankhal to form a single area known as the Hardwar Union. The three places are, however, quite distinct and each requires a separate description. The combined area, comprising the three towns and a few hamlets, contained 21,555 souls in 1872, the total rising to 28,106 in 1881 and to 29,125 ten years later, while at the census of 1901 the number of inhabitants was 25,597, of whom 18,209 were Hindus, 7,119 Musalmans, 107 Christians, 49 Jains and 113 of other religions, principally Aryas and Sikhs.

Hardwar proper had a population of 4,919 persons in 1865, falling to 4,800 in 1872 and to 3,572 in 1901, though the total varies greatly at different seasons of the year. The town has borne several names. It was at one time called Kapila, after a celebrated sage whose dwelling is commemorated in the Kapilasthan. The name Kapila or Kupila is supposed to be identical with the Kutila

mentioned by Timur. Another common name is Gangadwara or the gate of the Ganges, by which it was known at least as early as the seventh century,* and this is generally employed by the Musalman historians. The Chinese traveller Hiuen Tsang described the town as Mo-yu-lo, which is probably Mayura or Mayapur, the southern suburb of Hardwar, and mentioned the existence of a Brahmanical temple north of Mo-yu-lo, which was called by the Hindus "the gate of the Ganges." Even the present name varies, Hardwar or Haradwar being derived from an appellation of Siva, while Haridwar is obtained from Hari, a synonym of Vishnu, each being claimed as correct by the votaries of the respective deities. Abul Fazl in the reign of Akbar refers to Maya or Haridwara, and Tom Coryat, who visited the place in the days of Jahangir, speaks of "Haridwara, the capital of Siva." There was a mint for copper coins here in the days of Akbar, who used, it is said, always to be supplied with drinking water from Hardwar. In 1796 the town was visited by Hardwicke, who calls it a small place situated at the base of the hills.† In 1808 Raper described it as very inconsiderable, having only one street about 15 feet in breadth and a furlong and a half in length. It is now much larger, being fully three-quarters of a mile long: but there is still only one street of any importance.

In its passage through the gorge the Ganges has a width of about a mile and the stream follows several channels, of which the westernmost takes off about two miles above the town and rejoins the main stream below Kankhal. Hardwar is built on the bank of this channel, and the river front with its succession of ghats and temples is extremely picturesque. The first of the sacred sites is the Bhimgoda tank on the north side of the pass. The tradition is to the effect that Bhim Sen, one of the Pandawas, was placed here to guide the Ganges in its descent, and that a kick from his horse formed the hollow in the rock now known as the Bhimghora or Bhimgoda tank. The next is in the town itself and consists of a well within a small temple called the Brahmakund, which possibly marks the site of the great temple mentioned by the Chinese traveller. Adjoining this on the south is the Har-ki-pairi or bathing ghat, so called from the imprint of

*C. A. S. R., II, p. 231. | †See also *Asiatic Researches*, IX, p. 309.

Vishnu's feet shown on a stone built into the wall. This ghat, the most sacred of all the holy places at Hardwar, was originally very small, having a width of only 34 feet at the top and 39 steps. As a great object of the pilgrims is to reach the sacred pool as soon as possible on the arrival of the propitious moment the results were often disastrous. In 1820, in consequence of a desperate rush made by the infatuated crowd, 430 persons were crushed to death, including several sepoys stationed there as guards; while similar occasions were often attended by deaths from drowning. In order to obviate the possibility of such occurrences the Government constructed the present ghat of sixty steps with a width of a hundred feet. In 1892 an outbreak of cholera caused the vast assemblage collected here on the occasion of the *kumbh mela* to be broken up; and this resulted in the formation of the Hardwar Improvement Society, since replaced by the Fair Fund. Various sanitary reforms were introduced by its agency, but the principal achievement was the improvement of the bathing place itself. The bottom of the pool was paved, and the current of the Ganges so directed as to secure a strong and constant flow of water past the ghat, while an iron railing was put up along the outer edge so as to save bathers from being carried out into the deep stream. The same society undertook to enlarge and pave the tank at Bhimgoda, and to construct a channel for supplying it with a constant stream of water from the river. Another important work was the erection of an iron girder bridge over the Lalta Rau, between the town and the railway station. This was put up by the Irrigation department, the cost being defrayed partly by the society and partly by the municipal board.

Adjoining the Har-ki-pairi is the Gangadwara temple, the largest and most important of all the Hardwar shrines. It is visited by all pilgrims, who come in thousands to the great fairs. Some account of the latter has been given in chapter II and need not be repeated. In early days these gatherings used frequently to be attended with riots and bloody affrays between the rival sects. The massacre of the devotees by Timur in 1398 was of a different nature, but in 1760 the rival mobs of Goshains and Bairagis fought a pitched battle, in which 1,800 are said to have

perished, while in 1795 the Sikh pilgrims slew 500 of the Goshains. Reference has been made elsewhere to the riots occasioned by an outbreak of plague in 1898. A good deal of trade is carried on during the fairs, and on such occasions the narrow bazar presents a very animated and picturesque site. A tax is imposed on pilgrims in order to meet the expenditure incurred on police, sanitation and the like, during the Dikhanti, the Kumbh and the Adh-kumbh *melas*, is collected at barriers, or else through railway agency by means of a surcharge on tickets.

South of Gangadwara comes a succession of temples and monasteries ending with the shrine of Sarwanath, which is situated at the junction of the Lalta Rau with the Ganges. South of this again is Mayapur, which contains the police station, the dispensary and the dak bungalow. At Mayapur too, just below Ganesh-ghat, are the headworks of the Ganges canal, and on the opposite side of the bridge over the regulator are the canal offices and the inspection bungalow, the latter being in a beautiful situation looking northwards up the river, with a magnificent view of the town, the gorge and the hills beyond. Mayapur was considered by Cunningham to be a very ancient site, identical with that of the populous city, three and a half miles in circuit, described by Hiuen Tsang. There is a large mound immediately opposite the canal bridge, covered with large bricks and stone fragments, and to the north of it are two old temples dedicated to Bhairon and Maya Devi. The latter contains some very ancient sculptures described by General Cunningham.* Further to the south-west, on the west bank of the canal, is a third old temple, known by the name of Narayan Bali, built of very large bricks, and beyond this is a large mound about 750 feet square, which is said to mark the fort of the mythical Raja Ben or Vena.

The town of Kankhal lies between the east bank of the canal and the river, about a mile south from the Mayapur headworks. It covers a considerable area, lying on both sides of a good stone-paved bazar-way, lined with substantial brick shops and large houses. The place has a very clean and picturesque

* C. A. S. R., II, p. 234.

appearance, with numerous fine trees and temples, many of the houses being decorated with fantastic paintings. There are also several good gardens surrounded by high walls and approached through handsome doorways. The chief *zamindars* are a rich and influential body of Udasi Faqirs presided over by a *mahant*, who is elected by the *panchayat* of the brethren. Besides their religious duties they carry on a considerable trade in money-lending, and own a large amount of land in the Roorkee tahsil. Besides that of the Udasis there are several other *akharas* in Kankhal, including the Nirmalas, Nirbanis and Niranjanis. The streets of Kankhal are frequented by numerous sacred cattle which are fed by the pilgrims, who throw down fodder for them in the circular space in the centre of the bazar. The population of the town numbered 3,766 in 1847 and rose to 6,275 in 1853, though at the following census in 1865, it had dropped to 4,781. It then rose again to 4,904 in 1872, while at the last enumeration in 1901 it was 5,521, consisting for the most part of Brahmans connected with the temples here and Hardwar, who intermarry exclusively with those of Jwalapur. During the Mutiny the townspeople, led by the rich Mahajans of the place, successfully resisted the attacks of marauders from the south of the pargana and from Najibabad on the Bijnor side of the river. Kankhal now contains a police outpost and a post-office. It was visited by plague in September 1897, and during the course of the next two months 61 cases occurred: but the outbreak was successfully dealt with by systemetic and complete evacuation of the inhabited quarter.

The principal temple stands in the southern extremity of the town and is called the Daksha, or more properly the Daksheswara. It is said to mark the spot known as Kanakhala in the Puranas where Mahadeo spoiled the sacrifice of Raja Daksha, and where Sati or Uma, the daughter of Daksha and spouse of Mahadeo, immolated herself in the fire. The temple is enclosed by a quadrangle surrounded by cells and containing, in addition to the main building in the centre, a number of deserted shrines, as well as that of Hanuman, at which worship is still carried on, and a small building with a bell presented by the Maharaja of Nepal in 1848. Outside are three large houses for the accommoda-

tion of pilgrims erected by the Rajas of Landhaura. Formerly the Ganges flowed close under the walls of the Daksha, but a series of floods changed the course of the stream and at the same time ruined many of the gardens that formed the chief adornment of the town. The greatest damage was done by the Gohna flood of 1894, which destroyed a number of houses along the river front in Kankhal, though the rise of twelve feet left Hardwar practically unscathed. The matter was taken up by Government, and some temporary protective works were carried out at a cost of some Rs. 800, diverting the stream to the east and leaving a broad expanse of boulders between the town and the dry weather channel. Subsequently a large *bandh* of boulders was constructed at considerable expense but this proved inadequate. It was then estimated that a very large expenditure would be necessary in order to ensure thorough protection, and the Government undertook to contribute Rs. 15,000 on the condition that the Hindus subscribed twice that amount; but the stipulation was not fulfilled and nothing further has since been attempted, though the work is now to be taken in hand by the Canal department.

There are many other temples in Kankhal, but none is of any great age or deserves special mention, excepting perhaps the Chhattri erected some 25 years ago by the Landhaura estate. It stands on the flood bank and is built on a massive stone platform with unusually deep foundations, so that the structure should be able to withstand the action of the river. The view from the summit is extremely beautiful, taking in the sacred hill of Chandi and its temples on the opposite bank of the stream, as well as the river and Hardwar, beyond which rise the outer hills crowned by the snowy peaks of the Himalayas.

From Kankhal a road leads westwards to the second bridge over the canal, giving access to the town of Jwalapur, a large place which stands on the north bank of the canal and is traversed by the direct road from Hardwar to Roorkee. There is a railway station known as Jwalapur, but this is on the south side of the canal and is approached by the third or Jwalapur bridge. The town consists for the most part of mud houses, and the principal residents are Musalmans and Brahmans, the former being

chiefly Julahas and converted Rajputs who own a fair amount of land in the neighbourhood. The population was 8,862 in 1847, rising to 12,162 in 1853 but falling to 9,665 in 1865 and to 9,269 in 1872. Subsequent enumerations have shown a rapid increase, the total in 1901 being 15,290. Jwalapur gives its name to the pargana, but in former days the capital was known as Bhogpur. It possesses a police station, a post-office, a cattle-pound and a branch dispensary, but there are few buildings of any size or importance. Nor are there any ancient remains, and generally the place is very uninteresting. In the outskirts are several fine masonry tanks, such as the Naya, Pandewala and Rupchandarwala on the west, round the mound which marks the site of the Rajput fort, and the large Tikri tank on the east by the side of the Hardwar road. The place suffered somewhat severely in the plague epidemic of 1898. Voluntary evacuation was effected throughout the town, save in one *muhalla*, and the outbreak was stopped; but the turbulent disposition of the inhabitants was manifested by a somewhat serious riot, of which mention has been made in chapter I.

A list of the educational institutions of the three towns will be found in the appendix. There is a number of Sanskrit *pathshalas*, especially in Jwalapur, the largest receiving grants-in-aid from the municipality. In Jwalapur, too, there is a school belonging to the American mission, which has a small station there. Jwalapur and Kankhal were brought separately under the operations of Act XX of 1856 in 1860, but in 1868 the Hardwar Union municipality was created.* Local affairs are now managed by a board of seventeen members of whom thirteen, including the chairman, are elected. The income is derived principally from an octroi tax on imports, supplemented by the rents of houses and sites, the proceeds of cattle-pounds, the sale of manure, and the license fees for *ekkas*. A table given in the appendix shows the chief items of receipt and expenditure for each year from 1890-91.† The income from the Fair Fund is not municipal and is separately administered.

* Notification No. 2370 of 25th May 1868.

† Appendix, table XVI.

IMLIKHERA, *Pargana and Tahsil* ROORKEE.

This large village stands in 29° 56′ N. and 78° 54′ E., amid the ravines on the left bank of the Sipia torrent, and on the south side of the road from Bhagwanpur to Dhanauri, some four miles north from Roorkee and 21 miles east from Saharanpur. It contained in 1891 a population of 2,337 persons, but at the last census the total had fallen to 2,165, of whom 580 were Musalmans. The place possesses a small bazar in which markets are held weekly, as well as a post-office and a lower primary school. The village is 2,042 acres in extent, but of this only 1,390 acres are cultivated: the revenue is Rs. 2,000, and the owners are Brahmans for one half and the Rani of Landhaura and a Jain Mahajan of Saharanpur for the rest in equal shares.

ISLAMNAGAR, *Pargana and Tahsil* NAKUR.

A large village on the eastern borders of the pargana, standing in 29° 50′ N. and 77° 24′ E., on the unmetalled road from Rampur to Ambahta and Nakur, at a distance of seven miles south-east from the tahsil headquarters and thirteen miles from Saharanpur. Close to the village on the west flows the Islamnagar distributary of the Jumna canal, the main line of which passes some two miles to the east. The place is said to have been originally called Gujarwala from the predominant caste of the inhabitants, Gujars, still forming the bulk of the cultivators; but the name was changed to Islamnagar by Abdullah Khan, the son of Jalal Khan, who founded Jalalabad in Muzaffarnagar. This man, having quelled a Gujar rising and expelled the old inhabitants, established here a colony of Pathans during the reign of Aurangzeb, and their descendants still hold the village, which has an area of 2,832 acres. The population, which in 1872 numbered 2,704 souls, had risen by 1901 to 3,306, of whom 1,855 were Hindus, 1,405 Musalmans and 46 of other religions. The place contains three or four mosques, and a lower primary school. There is also a post-office, and a small market is held weekly in the bazar.

JABARHERA, *Pargana* MANGLAUR, *Tahsil* ROORKEE.

A small town in the extreme north-west corner of the pargana, standing in 29° 48′ N. and 77° 47′ E., on the north side of

the road leading from Manglaur to Lakhnaur and Saharanpur, at a distance of six miles west from Manglaur, 19 miles from the district headquarters and eight miles south-west from Roorkee, with which it is connected by a branch road. To the east of the site flows a small affluent of the Sila, effectively carrying off the surface drainage, and beyond this stream is the village of Jabarheri, once well known as the headquarters of a Gujar *taluqa*. The population of Jabarhera numbered 4,601 in 1872, but has since declined: it was 3,403 in 1881 and 3,475 ten years later, while in 1901 it was found to have remained stationary at 3,479, of whom 2,593 were Hindus, 782 Musalmans and 104 of other creeds.

Jabarhera has been administered under Act XX of 1856 since 1860, and subsequently was brought under the operations of the Village Sanitation Act, 1892. In 1907 the total number of houses in the town was 940, and of these 625 were assessed to taxation. The house-tax yielded Rs. 996, giving an incidence of Re. 1-9-6 per house and Re. 0-4-6 per head of population, while the total income, including the opening balance and small miscellaneous receipts, was Rs. 1,237. The expenditure for the same year was Rs. 989, the chief items being Rs. 486 for the maintenance of the town police, Rs. 203 for the upkeep of a conservancy staff, and Rs. 209 for works of improvement. The town lands are 2,232 acres in extent, and of this some 1,750 are cultivated; they are held in imperfect *pattidari* tenure at a revenue of Rs. 2,901 by the Rani of Landhaura and three other Gujar sharers. Jabarhera possesses a post-office, a small bazar and two lower primary schools, one of which is aided. There are several wealthy families of Banias in the town, which is in a prosperous condition and absorbs most of the grain trade of the neighbourhood. The only old buildings are the ruins of a fort and an elegant mosque and well, erected in 1784 by Nawab Hakim Khan.

JARAUDA PANDA, *Pargana and Tahsil* DEOBAND.

A very large village in the south-west of the pargana, lying in 29° 39′ N. and 77° 30′ E., at a distance of ten miles west from Deoband and four miles south of the road to Gangoh. Close to

the village on the west flows the Kalarpur distributary of the Jumna canal, from which the village lands are irrigated. The village has a total area of 3,504 acres and is held in *bhaiyachara* tenure by Tagas, who pay a revenue of Rs. 7,120. The inhabited site is surrounded by groves which cover 64 acres. There is an upper primary school here and a second-class canal bungalow on the Kalarpur distributary. The population at the last census numbered 3,471 persons, of whom 143 were Musalmans and 245 Aryas and Jains.

JASMAUR, *Pargana* MUZAFFARABAD, *Tahsil* SAHARANPUR.

A village near the left bank of the Rau of the same name and a mile north of the Maskara river, lying in 30° 12′ N. and 77° 42′ E., at a distance of five miles north from Muzaffarabad and four miles north-east from Behat. It contained at the last census a population of 1,496 persons, of whom 458 were Musalmans. The place is only deserving of mention as having been the headquarters of the Pundir clan of Rajputs in this district. The family is now represented by Karan Singh and Pirthi Singh, sons of the late Rana Pitambar Singh. They are in poor circumstances and have not had the advantages of a good education. Their father was left an orphan in his infancy, and the remainder of what had been a fine estate, comprising several villages in the Dun as well as in this district, was nearly all lost to him owing to the dishonesty of his agents. The village is a large one, covering 3,190 acres of very inferior land assessed to a revenue of Rs. 1,350, and held in joint *zamindari* tenure. There is no irrigation and a large amount of the land is waste, while still more has gone out of cultivation. There is a small lower primary school here, but nothing else of any interest.

JWALAPUR, *vide* HARDWAR.

JWALAPUR *Pargana*, *Tahsil* ROORKEE.

This is the easternmost pargana of the tahsil and district, extending from Dehra Dun on the north, from which it is separated by the crest of the Siwaliks, to the Muzaffarnagar boundary on the south. On the west it marches with Roorkee and

Manglaur, while on the east the deep stream of the Ganges forms the dividing line between this district and Bijnor. Owing to changes in the course of that river the area is liable to vary from time to time, the total for the five years ending in 1907 averaging 95,711 acres, or 149·55 square miles, exclusive of the forests.

Save for the small hill tract in the north, the entire pargana lies in the lowlands of the Ganges *khadir*. The hill portion consists of reserved forest, and below this comes the submontane belt with a tolerably even slope into the lowlands proper. The drainage is carried off rapidly by the Ranipur Rau and its affluents, so that the soil is light and thinly deposited, the heavy rainfall hardly compensating for the lack of irrigation. Part of this dry boulder-strewn tract is irrigated from small channels leading out of the canal, to the south of which the country improves in character and is fairly fertile. Below this again comes the swampy ground of the true *khadir*. Springs issue from the surface at the foot of the submontane belt, and the torrents develop into sluggish streams that find their way southwards across country. The Ranipur Rau becomes a perennial stream, and soon enters a large expanse of forest which occupies much of the western half of the pargana; and eventually it joins the Pathri, which flows along the western border in the midst of marshy jungle till its confluence with the Pirkhala, a small stream that rises in the eastern parts of the forest area. The Pathri then bends to the south-east, and near Raisi unites with the Banganga. These rivers have well-defined beds and cause no diluvion, though the land on their banks is liable to floods. The Banganga is in reality a mere backwater of the Ganges: it leaves the main stream a short distance below Kankhal and flows southwards as far as Sultanpur, where it bends to the south-west, and after uniting with the Pathri passes into Muzaffarnagar. This, too, has a clearly-marked bed, and does little damage, but the tract through which it passes is of a poor description and in a very backward state of development. There are large areas of waste and swamp, the climate is unhealthy and communications are practically confined to a single unbridged road, almost impassable in wet weather. The soil is stiff and requires more working than it obtains: it is generally foul with weeds,

and in the more neglected estates this foulness increases to such an extent that after a few years' cropping a long period of fallow has to be allowed before the land is again capable of tillage. Near the Ganges the surface is broken by numerous old channels and backwaters, and the cultivation is confined to scattered patches amid a waste of sand and grass jungle.

The pargana is in every way the most backward part of the district, and there are still large areas of worthless waste consisting either of barren sand or coarse grass jungle. The cultivated area in 1866 was only 30,131 acres, though apparently this does not include the alluvial *mahals*. At the last settlement the total had risen to 47,475, but this left out of account the unexpired jungle grants. In spite of the rapid subsequent improvement, the present average is only 54,050 acres, or 56·47 per cent. of the whole, apart from the reserved forests. The barren area is the largest in the district, averaging 17,493 acres or 18·28 per cent.; but this includes 11,133 acres under water and 3,671 acres taken up by roads, railways, buildings and the like. As much as 24,169 acres is classed as culturable, though from this must be deducted 4,242 acres of current fallow and 980 acres of grove, while in most cases the rest is of a very unpromising description. Irrigation is seldom required, owing to the inherent moisture in the soil, and most estates, particularly in the south and those near the Pathri swamp, suffer from an excess of water. The average area irrigated is 4,588 acres or 8·5 per cent. of the net cultivation, and of this 4,663 acres are supplied from the canal, which gives off several small branches in the north. Wells are seldom to be seen, and the water-courses are utilised only in years of drought.

The *rabi* area has greatly increased of late years and in all averages 36,802 acres, as compared with 32,286 sown in the *kharif*, the change being doubtless due to the spread of double-cropping which extends to 28·53 per cent. of the actual area under the plough. As usual, wheat is the principal spring product, covering 56·21 per cent. of the land sown, exclusive of 13·3 per cent. under wheat mixed with gram or barley. The former by itself takes up 15·27 and the latter 5·28 per cent.; there is also a large amount of *masur*, this crop being more widely

grown here than in any other part of the district. In the *kharif* rice, almost wholly of the early variety, comes first with 23·53 per cent., the area being much less than formerly, since its place has largely been taken by maize, which now averages 18·64 per cent. The remainder consists principally of *bajra* with 16·81, *juar* with 14·22, cotton with 11·57, all of these being grown in combination with *arhar*, and sugarcane with 9·19 per cent., though the crop is generally of an inferior quality.

The pargana is fortunate in possessing a fine body of cultivators, the principal castes being Chauhans, Sainis, Gujars, Chamars, Banjaras, Julahas and Jhojhas. The total area included in holdings in 1906-07 was 57,889 acres, and of this 20·32 per cent. was cultivated by proprietors, 11·19 by occupancy tenants, 67·32 by tenants-at-will and ·88 per cent. by ex-proprietors, the remainder being rent-free. There has been the usual diminution in the occupancy area, which now amounts to 6,480 acres as compared with 7,531 in 1866 and 8,140 twenty years later. Grain rents still prevail over a large portion of the pargana, the present area being 16,404 acres or much more than in any other part of the district, but none the less the last few years have witnessed a distinct decrease, since at the last settlement the total was 20,131 acres. Cash-rents are generally low, averaging Rs. 3-13-3 for occupancy and Rs. 5-9-3 per acre for other tenants; but the rise has been very rapid since 1886-87, when the corresponding figures were Rs. 3-3-5 and Rs. 3-6-1 respectively.

The revenue of the pargana, as assessed at each settlement since 1839, will be found in the appendix, as well as the present demand and its incidence.* The latter is the lowest in the district, as is only natural in view of the precarious nature of so many villages. The demand is apt to fluctuate from time to time, since there are 22 *mahals*, last assessed at Rs. 4,100 in 1906, on the alluvial register. Altogether Jwalapur contains 115 villages, and these are subdivided into 211 *mahals*, of which 65 are owned by single proprietors, 90 are joint *zamindari*, five are *bhaiyachara*, 28 are perfect and 23 are imperfect *pattidari*. The *zamindars* of the pargana are chiefly Gujars, who at the time of settlement held 22·3 per cent. of the area, Mahajans with

* Appendix, tables IX and X.

16·8, Chauhans with 11·4 and Europeans with 7·05 per cent., while Sainis hold 5·2, Rajputs and Goshains 4·9 apiece, Khattris 4·7, Udasi Faqirs 4·6, Brahmans 4·4 and Sheikhs 4·1 per cent. The largest estate is that of the Rani of Landhaura, who has eight villages and 14 shares assessed at Rs. 6,748. The Udasis of Kankhal have four villages and one share paying revenue Rs. 4,224; the Rajputs of Kankhal have five shares paying Rs. 2,987; and Gobind Sahai, a Khattri of the same place, owns two villages and two shares paying Rs. 2,085. One village and nine shares also, assessed at Rs. 3,737, are held by the Goshains of Kankhal. The other large proprietors are non-resident, and comprise, for the most part, Mahajans of Saharanpur, Landhaura and elsewhere.

In the days of Akbar the pargana went by the name of Bhogpur and this appellation was long retained, although Bhogpur, a village on the Ganges to the north-east of Sultanpur, has ceased to possess any importance. It is asserted by the traveller Tieffenthaler that Bhagwanpur was another name for Hardwar: but this is almost certainly due to a mistake, the tract in his day being styled Bhogpur *urf* Jwalapur. No change of importance occurred in 1842 but in 1855 two villages were transferred to Roorkee, while 17 were received from that pargana and 13 from Jaurasi, bringing the total up to 115 and increasing the area by 26,288 acres.

The population of the pargana in 1865 numbered 55,780 souls, and this rose in 1872 to 57,330, in 1881 to 67,413 and in 1891 to 74,996. The deterioration in the *khadir* then caused a decline, for in 1901 the pargana contained 71,824 inhabitants, of whom 32,717 were females, the total comprising 52,895 Hindus, 18,545 Musalmans and 384 others. The only places of importance are the towns of Hardwar, Jwalapur and Kankhal, which are united to form a single municipality; but there are several large villages, of which the chief are Sultanpur, Bahadurabad and Ruhalki. Means of communication are very indifferent, apart from the railway, which traverses the extreme southern portion, passing through the station of Raisi and at Laksar, in pargana Manglaur, gives off a branch to Hardwar and Dehra with intermediate stations at Pathri and Jwalapur. The

construction of the Dehra line has done much to improve matters, for all the roads are unmetalled and those in the *khadir* tract are impracticable for wheeled traffic during the rains, and at all times have to cross a number of rivers and streams. From Hardwar a road goes along the foot of the hills to Mohand and Khara; a second follows the canal, giving off a branch at Bahadurabad to Roorkee; and a third leads southwards to Sultanpur and thence close to Laksar. More roads are undoubtedly needed in the south, but the only undertaking of permanent utility would be the construction of a metalled and bridged road from Sultanpur to Laksar and Manglaur.

KAILASPUR, *Pargana* HARAURA, *Tahsil* SAHARANPUR.

A large village on the western borders of the pargana lying in 29° 58′ N. and 77° 38′ E., between the old and the new roads to Dehra, at a distance of six miles east of Saharanpur and a mile west of the bridge over the Hindan, where the branch road takes off to Bhagwanpur. The village at the last census had a population of 2,596 persons, of whom 1,581 were Musalmans, a large proportion of them being Telis. It is owned by Pathans who hold it in *bhaiyachara* tenure, paying a revenue of Rs. 950. The total area is 509 acres and almost the whole is cultivated, but means of irrigation are scanty, being confined to a few wells and small tanks. More than half of the village is cultivated by the proprietors themselves and the remainder by tenants-at-will. Kailaspur possesses a large upper primary school, a post-office and a bazar in which markets are held weekly on Thursdays. One of the Pathan sharers of Kailaspur is Khan Sahib Muhammad Naim Khan, who ranks among the leading landholders of the district as already mentioned in chapter III.

KALLUWALA JAHANPUR, *Pargana* MUZAFFARABAD, *Tahsil* SAHARANPUR.

Kalluwala Jahanpur, so called to distinguish it from the adjoining village of Kalluwala Paharipur, is a large and scattered village lying in 30° 10′ N. and 77° 47′ E., between the Kalluwala Rau on the west and the Shahjahanpur Rau on the east, in the north of the pargana, and extending southwards for some four

miles from the foot of the Siwaliks. There is no regular village of Kalluwala, but a number of hamlets containing in 1901 a total population of 3,000 persons, among whom were 823 Musalmans and eleven Jains. The whole village is the property of a Mahajan of Saharanpur. It has a total area of 5,098 acres and is assessed to a revenue of Rs. 4,600. The cultivation consists of detached blocks without any means of irrigation.

KANKHAL, *vide* HARDWAR.

KHERA AFGHANAN, *Pargana and Tahsil* NAKUR.

A village in the north-east of the pargana, standing in 29° 54′ N. and 77° 22′ E., on the west side of the road leading from Gangoh to Saharanpur, at a distance of three miles north-east of Ambahta, four miles from Nakur and thirteen miles south-west of Saharanpur. The village lands cover 785 acres and are held in *bhaiyachara* tenure by Pathans, who give their name to the place and pay a revenue of Rs. 1,100. The country lies low and is liable to inundations from a large depression to the north-west. To the south and south-east there is a considerable area of waste land. The cultivated portion is chiefly in the possession by tenants-at-will, and is solely irrigated from wells. There is an upper primary school here, as well as an aided school for girls and two indigenous schools, and a small market is held here weekly on Thursdays. The population at the last census numbered 2,410 persons, of whom 1,403 were Musalmans, 977 Hindus and thirty Aryas. Among the Musalmans there are large numbers of Julahas who are occupied in weaving coarse cloth.

KHERA JAT, *Pargana* MANGLAUR, *Tahsil* ROORKEE.

This village lies in the extreme south-west of the pargana in 29° 40′ N. and 77° 49′ E., at a distance of eight miles south-west from Manglaur and seven miles east from Deoband. On the south-west the boundary marches with Rajupur in the Deoband pargana and on the south-east with Pur in the Muzaffarnagar district. The population in 1901 was 2,511, including 165 Musalmans and a very large community of Jats, who are the proprietors. Save for the number of its inhabitants

the place has no claim to mention: there is an aided school, but nothing else of any interest. The village lands are highly tilled and well supplied with irrigation from the canal: they are 1,182 acres in extent, and of this 1,010 are cultivated. The tenure is *bhaiyachara*, and the revenue demand is Rs. 2,442.

KHERI, *Pargana* BHAGWANPUR, *Tahsil* ROORKEE.

A large village standing on the east or left bank of the Solani, in 30° 3′ N. and 77° 48′ E., at a distance of some 14 miles north-west from Roorkee and 19 miles from Saharanpur. Through it ran the old road to Mohand and Dehra and there was once a dak bungalow here, but the road has long been abandoned and the place is now somewhat inaccessible. The population in 1901 numbered 2,204 souls, of whom 1,344 were Musalmans, while Chamars are the prevailing Hindu caste. The Musalmans are principally converted Rajputs of the Pundir clan. As was the case with Sakrauda, the Rao of Kheri in the days of Zabita Khan made his estate into a separate *tappa* which was broken up in 1838, when the waste land was cut off to form the Kheri jungle. In the revenue records the place is shown as Kheri-Shikohpur, the latter being the name of a small hamlet in the hilly country to the east. The village possesses a lower primary school but nothing else of any interest. The Musalmans are now in very reduced circumstances, and a large part of the land has been sold to money-lenders of Choli and others. They now pay Rs. 1,689 out of a total revenue demand of Rs. 2,921, but the area, amounting in all to 6,643 acres of which some 3,740 are cultivated, is split up into no fewer than 95 separate *mahals*.

KHUJNAWAR, *Pargana* MUZAFFARABAD, *Tahsil* SAHARANPUR.

A large but otherwise unimportant village, standing in 30° 6′ N. and 77° 44′ E., on either side of the Chahicha Rau, just below its junction with the Khokra and three miles above the confluence with the Hindan. It is approached by two unmetalled roads, leading from Fatehpur and Sherpur on the main line from Saharanpur to Dehra, which here unite and continue to Muzaffarabad, two miles to the north-west, the

distance from Saharanpur being 19 miles by road. The larger portion of the village is on the left bank of the Chahicha; but the area on both sides is extensive, covering 2,003 acres of which 602 acres are separately demarcated as alluvial. Lying in the submontane tract, the soil is somewhat poor and devoid of means of irrigation. Most of the cultivation is carried on by the proprietors, Musalman Pundirs by caste, who pay a revenue of Rs. 2,041. The population in 1901 numbered 2,962 souls, of whom 1,930 were Musalmans. The village possesses an aided school and two mosques: to the south-east of the site are two large tanks, known by the names of Hiradhar and Kirparam.

KOTA, *Pargana* HARAURA, *Tahsil* SAHARANPUR.

A village situated in the extreme south of the pargana, in 29° 53′ N. and 77° 38′ E., on the west side of the road from Haraura to Nagal, at a distance of seven miles south-east of Saharanpur. It is one of the few villages in this pargana which are held by Jats, the tenure being *bhaiyachara* and the revenue demand Rs. 1,725. It has a total area of 914 acres and is chiefly irrigated from wells. There is a number of groves, which almost surround the inhabited site, and one or two tanks. The place possesses a post-office, an aided school and a small indigenous school. The population at the last census numbered 1,886 persons, of whom 327 were Musalmans. Kota is the home of a wealthy family of Mahajans, who are among the chief landholders of the pargana.

LAKHNAUTI, *Pargana* GANGOH, *Tahsil* NAKUR.

An old town standing in 29° 46′ N. and 77° 12′ E., on the north side of the road leading from Saharanpur and Gangoh to Karnal, at a distance of four miles west of Gangoh and 27 miles from the district headquarters. It is built on the high bank that marks the western edge of the uplands, and immediately below the cliff flows the Saindli, a small tributary of the Jumna, while between the town and the latter river is a narrow strip of *khadir*, some two miles in width. Lakhnauti is said to have been founded by a colony of Turkmans who came to India in the train of Babar. They obtained possession of a large tract

of country, and the place had attained sufficient importance to be the capital of a pargana in the days of Akbar. This pargana was broken up in 1842, most of the villages being assigned to Gangoh, though some were given to Rampur and some to the neighbouring parganas of Muzaffarnagar. At the beginning of the 19th century the Turkmans held the Kaini *taluqa* of 21 villages; but in 1809, on the death of their last acknowledged chieftain, Bahrmand Ali Khan, who left no male issue, the estate was broken up. The town lands, which cover 2,038 acres and are assessed at Rs. 1,525, are still held by a *pattidari* community of Turkmans, but they are in very poor circumstances. The town, too, is in a dilapidated condition, and only its ruined buildings testify to its former importance. The old fort of the Turkmans is a fine structure lying close to the Gangoh road on the east of the town. In 1794 it offered an obstinate resistance to Bapu Sindhia, the Maratha governor of Saharanpur, who failed to reduce the place till reinforcements were brought and a practicable breach effected by George Thomas. Seen from a distance, the building appears much as it was after the siege, the outer wall being in a good state of preservation, though still bearing the marks of Sindhia's cannon; but the houses in the interior have been demolished and even the bricks sold by Mr. Powell, the present owner. It is perhaps the most picturesque and interesting relic of Musalman occupation in this district.

The decay of Lakhnauti in recent times is illustrated by the decline in the population. The total rose from 3,998 in 1872 to 4,312 in 1881; but ten years later it was only 3,391, while in 1901 the town contained but 3,084 inhabitants, of whom 1,868 were Musalmans. There is a post-office here and a lower primary school, while small markets are held weekly in the bazar. The place, which is administered under Act XX of 1856 and the Village Sanitation Act, 1892, contained 1,069 houses, of which 607 were assessed to taxation. The income from the house-tax in that year was Rs. 850, falling with the incidence of Re. 1-6-4 per assessed house and Re. 0-4-4 per head of population. With the opening balance and the small miscellaneous receipts the total income amounted to Rs. 1,091 and the expenditure to Rs. 1,066, the chief items being Rs. 424 for the upkeep of

the police force, consisting of six men, Rs. 216 for the maintenance of a conservancy staff and Rs. 60 for minor improvements.

LANDHAURA, *Pargana* MANGLAUR, *Tahsil* ROORKEE.

A small town, rather resembling an overgrown village, situated in 29° 48′ N. and 77° 56′ E., on the high ground overlooking the valley of the Solani, at a distance of some five miles south-east from Roorkee by the unmetalled road leading to Laksar, and three miles east from Manglaur. To the east of the Roorkee road runs the railway, and in the lowlands, about a mile from the town, is the Landhaura station. The population was 5,197 in 1853, and though the place was burned for the mutinous behaviour of the inhabitants in 1857, the total was 5,118 in 1865, falling to 5,023 in 1872, though by 1881 it had risen to 5,764. The next census, however, again witnessed a decline, the number falling to 5,065, while in 1901 it was 5,089, including 2,938 Hindus, 2,107 Musalmans and 44 Christians and others.

Landhaura is best known as the residence of the great Gujar family whose house, situated within a large quadrangular enclosure, adjoins the town on the north-west. The history of the family and of the estate has been given in chapter III. Otherwise the place is quite unimportant. It possesses a post-office and a large upper primary school; but there are no manufactures, and the weekly market is purely of local significance. The village lands are the property of the Rani and are assessed at Rs. 2,570: they cover 1,550 acres, of which some 1,220 acres are under cultivation.

LIBARHERI, *Pargana* MANGLAUR, *Tahsil* ROORKEE.

Libarheri is a small town standing in 29° 46′ N. and 77° 52′ E., on the left bank of the Ganges canal, two miles south of Manglaur, with which it is connected by an unmetalled road, while the main road to Muzaffarnagar is approached by means of a bridge across the canal. The place is situated near the eastern edge of the uplands, but though the site is high, the natural drainage has been to some extent interfered with by the canal, which also had the effect of raising the water-level, with the result that the health of the town seriously deteriorated,

The evil was accentuated by the presence of numerous excavations and hollows, forming stagnant pools in the outskirts and rendering the sanitary condition of the place very defective. In order to remedy this state of affairs and at the same time to improve Manglaur a system of drains was undertaken by the canal department, including a cut made in 1875 for seven miles along main canal, while two years later a second cut was taken westwards from the town into the Sila. In 1886 this was supplemented by a third cut from a tank on the east of Manglaur into the old Libarheri drain, thus remedying the obstruction caused by the left main distributary which irrigates the lands to the east, though further improvements are now being carried out.

The town is an old Gujar settlement, but has no history of its own. It is now a thriving place, noted for the excellence of the crops grown in the vicinity, and possessing a market of some local importance; but the great majority of the houses are built of mud, and there are no buildings of any architectural merit. The number of inhabitants in 1872 was 3,158, and this rose to 3,581 in 1881, though ten years later the total had dropped to 3,517. At the last census in 1901 the population was 3,982, of of whom 3,177 were Hindus, mainly Jats and Gujars, and 805 Musalmans. The next enumeration, however, is likely to show a marked decline owing to the terrible ravages of plague in 1906-07, which caused numbers of the people to migrate permanently. There is an upper primary school in the town, and the American Mission has a branch here. The owners of the land, which is 1,715 acres in extent and is assessed at Rs. 3,240, are for the most part Jats, but a considerable share is held by Brahmans, while several small plots are in the possession of other castes. Up to the end of 1908 the town was united with Manglaur for the purposes of Act XX of 1856.

MANGLAUR, *Pargana* MANGLAUR, *Tahsil* ROORKEE.

The place which gives its name to the Manglaur pargana is a considerable town standing in 29° 48′ N. and 77° 53′ E., on the left bank of the Ganges canal and the east side of the main road from Roorkee to Muzaffarnagar, at a distance of six miles due south from the former and 26 miles south-east from the district

headquarters, with which it is connected by an unmetalled road leading through Jabarhera and Lakhnaur. From the east of the town roads lead to Landhaura and Laksar, while from the west bank of the canal a branch from the provincial road runs to Deoband.

Manglaur is said to derive its name from a Rajput chieftain named Mangal Sen, who lived in the days of Vikramaditya, and traces of his fort are still visible near the main site. Its occupation by the Musalmans at an early date is proved by the existence of the mosque of Shah Wilayat, built by the Sultan Balban in 1322, as recorded in an Arabic inscription. It was the capital of a pargana in the days of Akbar but otherwise does not figure in history, and when the district was first taken over by the British it was nothing more than a large agricultural village. The population in 1847 was 5,959, but by 1853 had risen to 10,322 though the total dropped to 9,665 in 1865 and to 9,202 in 1872. Subsequent enumerations have shown a constant increase, the number of inhabitants rising to 9,990 in 1881 and to 10,037 ten years later, while in 1901 it was 10,763, of whom 3,059 were Hindus, 7,650 Musalmans and 54 of other religions, Jains Christians and Sikhs. The Musalmans are principally Julahas, and most of them are in very poor circumstances: they still carry on their ancestral trade in country cloth, but they have suffered much from competition by European and factory-made fabrics.

Another industry of the place is carpentry, for which Manglaur was famous in former days, though a decline set in about 1869, when an epidemic of fever carried off nearly all the best workmen. Of late years the business has revived, and very good chairs and other articles of furniture are turned out by the workmen of the town. There is a certain amount of general trade carried on in the bazar; but agriculture is the chief interest, since the crops grown in the neighbourhood are exceptionally fine, and there is a very large demand for manure. The houses in the town, which covers an area of 171 acres, are for the most part mud dwellings of the ordinary type, but there is a number of good brick buildings, belonging generally to the *zamindars*, who are people of considerable wealth, or to Banias

and tradesmen. The principal landholders are a family of Musalmans, who have long held the office of *qazi*. The site is fairly raised and is surrounded on all sides by fine groves. In the outskirts there are many depressions, which in former days rendered the place peculiarly unhealthy; but the condition of affairs has been immensely improved by the execution of numerous drainage works, and the largest of the depressions, to the south of the town and originally used as a brickfield, is now cultivated and produces *rabi* crops of unusual excellence.

Manglaur possesses a police station, a post-office, a branch dispensary and a cattle-pound. There is a well-attended middle vernacular school and three indigenous schools of little importance. The town was brought under the operations of Act XX of 1856 in 1860, and ten years later it was united for this purpose with Libarheri, a large village about two miles to the south described in the foregoing article; though the operations of the Act were withdrawn from the latter place in 1908. Other enactments in force are the Village Sanitation Act, 1892, and section 34 of Act V of 1861. In 1907-08 the combined towns contained 3,976 houses, of which 2,380 were assessed, the income from the house-tax being Rs. 2,803, giving an incidence of Re. 1-2-10 per assessed house and Re. 0-3-0 per head of population. These rates are the lowest in the district, but Manglaur is by far the most flourishing and prosperous of all the Act XX towns. The total receipts, including the initial balance and miscellaneous income to the amount of Rs. 1,045, derived mainly from the sale of manure, were Rs. 5,344, while the expenditure for the same year was Rs. 3,735. Of the latter the chief items were Rs. 1,525 for the upkeep of the local police force, Rs. 846 for the maintenance of a conservancy staff and Rs. 1,180 for works of local improvement.

MANGLAUR *Pargana, Tahsil* ROORKEE.

Manglaur is the south-western pargana of the tahsil, and lies to the south of Bhagwanpur and Roorkee, between Jwalapur on the east and Nagal and Deoband parganas on the west, while on the south the boundary marches with Muzaffarnagar. In shape it is a long and narrow stretch of country, its extreme

length being sixteen miles from east to west, while the greatest breadth is not more than ten miles, and the average is much less. The total area is 78,267 acres or 122·19 square miles.

The high bank of the Ganges valley divides the pargana into two unequal portions, each with marked characteristics of its own. The western and larger part belongs to the upland plain and consists of a fairly level tract of average quality. In places the surface rises into sandhills, which run southwards into Muzaffarnagar, the most prominent of these taking a course parallel and to the east of the Ganges canal, while a second appears first on the east and then on the west bank of the Sila. This river constitutes the main drainage line and follows a southerly course through the west of the pargana, being joined on its right bank near Lathardewa by a smaller stream known as the Khala. It has a deep bed and its banks are high and sandy, the natural poverty of the soil being enhanced by the lack of irrigation. The Sila is crossed by the Deoband branch of the Ganges canal, which takes off a short distance above the town of Manglaur. Apart from the sandy tracts the uplands possess a light loam soil of good quality, occasionally stiffening into clay, and supplied in most villages with canal water. East of the main canal the drainage is carried by numberless ravines through the broken and sandy crest of the high bank, most of it falling into the Bhat, a small but peculiarly destructive tributary of the Solani. The latter river traverses the *khadir* from north to south, generally keeping close to the high bank. Further east flows a tributary of the Banganga called the Hadwaha, which in this pargana has a fairly deep bed and is not so injurious as in pargana Roorkee, although there is good deal of swampy ground in its neighbourhood. The eastern boundary is formed for some miles by the Banganga, which is comparatively innocuous. The whole of the *khadir*, however, is more or less precarious and subject to saturation in wet years. The soil is either a grey loam or a stiff brown clay, which requires constant labour, as it is apt to become foul with weeds, to such an extent in some cases that, after a few years' cropping, it requires several seasons of fallow before it can be again tilled. Irrigation is seldom necessary in the lowlands, but can be obtained without difficulty from temporary wells.

The eastern portion generally resembles Jwalapur, while the conditions in the rest are similar to those of Deoband. The cultivated area in 1866 was 59,311 acres, but the depression which made itself felt throughout the *khadir* brought down the total to 58,788 at the last settlement. Subsequent years have witnessed an improvement, the present average being 60,890 acres or 77·8 per cent. of the entire pargana. This is a high figure in view of the large barren area, which amounts to 10,478 acres or 13·39 per cent.: this including 3,958 acres under water and 3,733 acres permanently occupied by roads, railways, buildings and the like. Though there is much inferior and often useless land in the *khadir* and on the high bank, the extent of culturable waste is far smaller than in other parts of the tahsil, the whole amounting to 6,898 acres, and this includes 944 acres of groves and 2,709 acres of current fallow. In the *khadir* little irrigation is required, but the uplands are well supplied by the canals. On an average, taking the returns of the five years ending in 1906-07, 14,773 acres are irrigated, this representing 24·26 per cent. of the area under tillage; almost the whole is supplied by the canal and its branches, other sources watering less than 500 acres, while in normal years the figure is much smaller.

The *rabi* harvest averages 41,089 acres as against 35,571 sown for the *kharif*, and over 26 per cent. of the area cultivated bears two crops in the year. Manglaur is a great wheat-growing pargana, this staple occupying 57·94 per cent. of the spring harvest when sown by itself and 9·08 per cent. in combination with gram or barley. Wherever possible wheat has displaced the other crops, though gram still covers 23·83 and barley 3·2 per cent., *masur* being the only other product of importance. The relatively large amount of gram is due to the fact that this crop is usually sown in succession to rice, which covers 34·75 per cent. of the *kharif* area, three-fifths being of the early variety; but on the other hand rice has declined in a marked degree of late, and its place has in a large measure been taken by *juar* grown for fodder, which leaves the land vacant for *rabi* sowings. Altogether *juar* makes up 18·44, *bajra* 14·56, sugarcane 13·45, cotton 4·67 and maize 3·61 per cent. of the harvest, while fairly wide areas are under autumn pulses and small millets.

The chief cultivating castes are Gujars and Jats, while next in order come Jhojhas, Sainis, Brahmans, Tagas and Chamars. In 1906-07 the total area included in holdings was 63,241 acres, and of this 37·43 per cent. was cultivated by proprietors, 22·51 by occupancy tenants, 34·87 by tenants-at-will and 4·32 by ex-proprietors, the remaining ·87 per cent. being rent-free. The occupancy area, 14,235 acres, shows a decided decrease, as in 1886 it was 16,955 and as early as 1866 it was 13,169 acres. Almost all the land is held on cash-rents and only 909 acres of more or less precarious land are grain-rented, though at settlement 2,274 acres were so held. The average cash rates are Rs. 4-4-1 for occupancy and Rs. 6-10-0 for other tenants, whereas twenty years previously the corresponding figures were Rs. 3-4-11 and Rs. 4-6-11 per acre respectively, the recent rise having been fully as rapid as in any other part of the district.

The tables given in the appendix show the successive assessments of the pargana, as well as the present demand and its incidence.* Owing to the existence of 16 alluvial *mahals*, last assessed in 1908, the total revenue is liable to vary from year to year, though only to a slight extent. The pargana contains 143 villages, at present divided into 378 *mahals*, of which 58 are owned by single proprietors, 34 are joint *zamindari*, 220 are *bhaiyachara*, 62 are imperfect and four are perfect *pattidari*. The Gujars are still the chief landowning caste, although they have lost heavily during the past half-century. At the last settlement they owned 43·1 per cent. of the total area, and next came Jats with 17·2, Mahajans with 10·5, Sheikhs with 4 and Brahmans with 3·2 per cent., while smaller shares are held by Garas, Kalwars, Tagas, Rajputs, Kayasths, Jhojhas and others. The largest estate of course is that of the Rani of Landhaura, who owns 14 whole villages and 15 shares assessed at Rs. 12,825. The Chaudhris of Jabarhera have four shares paying revenue Rs. 2,431, the Gujars of Mundlana 15 shares paying Rs. 2,138, and the Kalwars of Landhaura have 13 shares paying Rs. 3,214.

The pargana is of ancient date, but its area has been subjected to several alterations. Since the introduction of British

* Appendix, tables IX and X.

rule several changes have occurred, the first of importance being the exchange of five villages with Muzaffarnagar, by which Manglaur benefited largely both in revenue and population, the five transferred lying in the Ganges *khadir*, while those received belonged to the fertile uplands. In 1855 a more extensive reconstitution took place: 19 villages were transferred to Bhagwanpur, the pargana receiving in their stead two villages from Deoband, 24 from Roorkee and 26 from Jaurasi. The last was an old pargana, dating at least from the time of Akbar, and was now broken up, the bulk of its villages going to Roorkee. The result of these exchanges was a gain of 20,498 acres, the total number of villages being 145.

For this reason the population rose from 49,639 in 1853 to 68,628 at the following census of 1865. Famine and other causes brought the number down to 66,742 in 1872; but by 1881 it had risen to 73,157 and by 1891 to 74,761, while ten years later the inhabitants numbered 78,019, including 36,306 females. As is the case throughout the Roorkee tahsil, the proportion of Musalmans is high, the followers of this creed numbering 24,145 as compared with 53,605 Hindus and 269 of other religions. The chief place is Manglaur; but the pargana also contains the towns of Landhaura, Jabarhera and Libarheri and several large villages, of which the chief are Khera Jat, Narsain and Mundlana.

Means of communication are very fair, even in the lowlands, which are traversed by the main line of the Oudh and Rohilkhand Railway, from which a branch takes off at Laksar, leading to Hardwar and Dehra; there is also a station at Landhaura, whence unmetalled roads of an indifferent description lead to Roorkee, Hardwar, and Dausni, the last being on the road from Manglaur to Sultanpur Kunari which passes through Laksar. The uplands are adequately served by the metalled road from Muzaffarnagar to Roorkee, branches taking off at Manglaur and leading to Deoband and Saharanpur. The latter is connected with Roorkee by a road joining it at Jabarhera.

MIRZAPUR, *Pargana* FAIZABAD, *Tahsil* SAHARANPUR.

A large village standing in 30° 15′ N. and 77° 37′ E., on

the west side of the metalled road from Saharanpur to Chakrata, at a distance of 23 miles north from the district headquarters. The village lands have an area of 1,636 acres and extend westwards to the Raipur torrent, variously called the Jonsal and the Pancha Rau. They are assessed at Rs. 2,850, and are held by the Messrs. Powell. At the last census the place contained a population of 3,162 persons, of whom 2,234 were Musalmans, principally of the Gara caste. These people are cultivators, but the fields are dependent wholly on the rainfall, as water is very scarce and there is in fact but a single well, and that of great depth. Mirzapur deserves notice as possessing a cattle-pound and a post-office; it was formerly of more importance on account of a police station, but this has recently been abolished.

MOHAND, *Pargana* BHAGWANPUR, *Tahsil* ROORKEE.

There is no regular village of Mohand, the place being a small clearing in the forests at the foot of the hills in the north-west corner of the pargana. It is situated in 30° 11′ N. and 77° 55′ E., on the right bank of the Mohand Rau, one of the feeders of the Solani, and on the main road from Saharanpur to Dehra, 28 miles from the former and the same distance from Roorkee. There is a police station here, as well as a post-office, an inspection-house, formerly used as a dak bungalow, a forest rest-house, a *sarai* and a military encamping-ground. The population in 1901 numbered 192 souls, but the total is constantly fluctuating. From Mohand the road ascends sharply to the pass and the tunnel through the crest of the Siwaliks, and the place was once a regular stage for travellers to Dehra and Mussooree. Its importance has vanished with the opening of the railway to Dehra, and the road now bears but a fraction of its former traffic.

MUZAFFARABAD, *Pargana* MUZAFFARABAD, *Tahsil* SAHARANPUR.

The capital of the Muzaffarabad pargana is a village of no great size, lying in 30° 7′ N. and 77° 43′ E., at a distance of about 17 miles north-east from Saharanpur. It is built on the southern edge of the submontane tract, between the Nagdeo on the west and the Chahicha Rau on the east, and is approached

from Khujnawar, whence two roads run to Fatehpur and Sherpur, on the metalled road from Saharanpur to Dehra. In common with the rest of the surrounding country there is no irrigation, and the crops are almost wholly dependent on the rainfall. The village lands cover 1,850 acres and are held in *pattidari* tenure, at a revenue of Rs. 2,650, by Hindu Rajputs of the Pundir clan, Sheikhs and Banias. The population in 1901 numbered 1,822 persons, of whom 1,083 were Hindus, 705 Musalmans and 34 of other religions. Muzaffarabad is obviously a place of some antiquity, having been the capital of a pargana at least as early as the days of Akbar, but nothing is known of its origin or history. At the present time it possesses a police station, shortly to be abolishhed, a post-office, a cattle-pound and a lower primary school.

MUZAFFARABAD *Pargana, Tahsil* SAHARANPUR.

Muzaffarabad gives its name to the north-eastern and largest pargana of the Saharanpur tahsil. It comprises a wide stretch of country extending southwards from the crest of the Siwaliks, beyond which lies the district of Dehra Dun, to the borders of Saharanpur and Haraura. To the east is pargana Bhagwanpur and to the west Faizabad. The total area is 84,243 acres or 131·63 square miles, excluding the forests.

The northern portion consists of reserved forest, which embraces all the hilly tract, and is drained by a number of boulder-strewn torrents, dry for the greater part of the year, but attaining large dimensions in the rains, to the great detriment of the lands in their vicinity. Below the hills lies the *ghar* or submontane tract very similar to that in Faizabad and occupying about one-third of the entire area. Here, too, the forest has disappeared, save for a thick patch of Government reserve extending for some six miles from the eastern boundary. The *ghar* has a fairly rich alluvial soil of a peculiar dark colour, resting on a bed of boulders and stone in which irrigation is impossible, though the heavy rainfall renders artificial watering unnecessary in favourable seasons and good crops are produced with little labour. The deposit is very thin in the north and the land is consequently of no value, while the surface of the ground is broken by the torrent beds. Those on the west take a south-

westerly course through the pargana and unite to form the Maskara, of which the principal contributary streams are the Jasmaur, Sahansra and Kotri Raus. Next come the Dhamola and Nagdeo, which traverse the pargana and then pass into Saharanpur to join the Hindan. The latter originates partly in the Chahicha Rau and partly in a small stream that rises on the southern edge of the *ghar* near Aurangabad. East of this again comes the high bank separating the valleys of the Ganges and Jumna, and immediately below it flows the Khandur Rau, one of the main affluents of the Solani. In this low valley there is little culturable land owing to the destructive nature of the many torrents, and the surface soil is mainly a barren sand covered with boulders and scrub jungle. Below the *ghar*, the southern boundary of which is marked by an outcrop of boulders, the country passes gradually through a narrow tract with all the characteristics of the Tarai into the level upland plain which occupies all the central portion of the district. Here the soil is a rich loam, with ample means of irrigation and great natural advantages: occasionally sand appears on the river banks, but the area so affected is but small. The south-western corner is traversed by the eastern Jumna canal, but little irrigation is obtained from its distributaries owing to the height of the fields above the channels.

The southern portion of the pargana is well developed, while in the north the forest is steadily giving way before the plough. The cultivated area in 1866 amounted to 33,967 acres and had risen by the last settlement to 40,947 acres, while the average of the last five years has been 60,889 acres or 72·28 per cent. of the whole, irrespective of the reserved forest. The increase is less than at first sight appears, for the early figures omit the jungle grants which were excluded from the settlement, but none the less there has been a very rapid extension. The culturable area is 9,556 acres or 11·34 per cent. of the whole, though this includes 1,461 acres of current fallow and 431 acres of groves, while much of the remainder is of little agricultural value. The barren area is very extensive, amounting to 13,562 acres; but of this 10,816 are under water, either permanently or at some portion of the year, and 23,488 acres are occupied by roads and buildings, the rest being principally sand or boulders. As already

mentioned, irrigation is practically unknown, and the area watered averages but 400 acres annually, practically the whole of this being supplied by the canals. Double-cropping is very widely practised and the area thus treated averages 33·5 per cent. of the net cultivation, this figure being exceeded only in the adjacent pargana of Faizabad.

The crops are much the same as those grown in the other northern parganas of the district, and the outturn depends wholly on the nature of the season. For this reason the *kharif* covers the larger area, averaging 41,765 acres as against 39,363 sown in the *rabi,* though with the spread of double-cropping the difference tends to diminish, and in 1906-07 the position was actually reversed. The chief *kharif* staple is maize, which matures early and is therefore less dependent on a prolonged monsoon, covering 29·11 per cent. of the *kharif* area. This is followed by *juar* with 18·42 and *bajra* with 18·03, cotton with 16·17, early rice with 8·28 and sugarcane with 2·81 per cent., the balance consisting principally of the smaller millets. In the *rabi* 52·86 per cent. of the area is occupied by wheat sown alone, 9·44 by this crop in combination with barley or gram, 25·63 by gram and 3·2 per cent. by barley; *masur,* oats and oilseeds making up the remainder.

The pargana possesses a good body of cultivators, the chief castes being Rajputs, Sainis, Garas, Kambohs, Banjaras, Chauhans, Chamars and Gujars, while the composition of the tenantry is much more diverse than usual. There is less proprietary cultivation than in any other part, for in 1906-07 out of a total area of 64,184 acres included in holdings only 14·61 per cent. was recorded as *sir* or *khudkasht.* Occupancy tenants held 26·26, tenants-at-will 57·11 and ex-proprietors 1·12 per cent., the small remainder being rent-free. The occupancy area is relatively large, aggregating 16,846 acres: and this is one of the few parts of the district in which there has been an increase in this direction, since the total was 11,772 acres in 1866 and 12,889 twenty years later. Rents are still paid in kind to a considerable extent, the grain-rented area being 10,104 acres, although there is a constant tendency to effect conversion, for at the settlement 15,998 acres were so held. The average cash rates of the present time are

Rs. 3-12-6 for occupancy and Rs. 6-5-3 for other tenants. The rise during the past two decades has been considerable, as in 1886 the corresponding averages were Rs. 3-8-10 and Rs. 4-3-6 respectively.

The revenue as assessed at successive settlements, together with the present demand and its incidence, will be found in the appendix.* Slight variations occur from time to time since 30 *mahals*, last assessed in 1905 at Rs. 3,150, are on the alluvial register. There are 1,012 acres revenue-free, on which cesses alone are paid. The pargana contains 107 villages, at present divided into 284 *mahals*, of which 57 are owned by single proprietors, 63 are joint *zamindari*, 25 are *bhaiyachara*, seven are perfect *pattidari* and 132 are held in the imperfect variety of the same tenure. There have been few changes in the proprietary body, for the Mahajans have acquired land principally by purchase of jungle grants and not so much at the expense of the old *zamindars*. At the time of settlement Rajputs held 38·5 per cent. of the pargana, closely followed by Mahajans with 37·6; while next came Sheikhs with 7·8, Garas with 3·5 and Pathans with 2·5 per cent., the rest being held by Kambohs, Brahmans, Khattris and several other castes. The largest properties are those belonging to several Mahajans of Saharanpur, while among other landowners may be mentioned the Rajputs of Jasmaur and Lala Manohar Lal, Rai Bahadur of Thapal Ismailpur.

The pargana was known by its present name as early as the days of Akbar, but like all the other subdivisions of the district, it has undergone many changes of area. In 1842 Kheri, which had been detached from Roorkee in the days of Zabita Khan, was united with Muzaffarabad, and a number of villages were added from Faizabad, Behat and Sultanpur, while others were assigned to Saharanpur. The redistribution of the area that was effected in 1855 caused a further extensive alteration. Muzaffarabad contributed 63 villages to the new pargana of Haraura, 17 to Bhagwanpur, four to Saharanpur and one detached village to Sarsawa. In return it received six villages from Saharanpur and 57 from the now abolished pargana of Behat, the transaction bringing about a great change in the outline, but involving a net loss of no more than 154 acres.

* Appendix, tables IX and X.

By this process, however, a great loss of population was entailed, the total dropping from 43,066 in 1853 to 40,244 in 1865. Since that time it has rapidly increased, the number of inhabitants rising to 46,278 in 1872, to 54,275 in 1881 and to 59,490 ten years later. In 1901 Muzaffarabad had a population of 62,510 persons, of whom 29,780 were females, the total including 42,537 Hindus, 19,634 Musalmans and 339 others. The pargana possesses no town, but contains a fair number of large villages the chief of these being Thapal Ismailpur, Kalluwala, Sherpur, Khujnawar and Muzaffarabad itself. Save in the east, where the metalled road from Saharanpur to Mohand and Dehra runs along the boundary, means of communication are very deficient and progress is hampered by the numberless torrent beds, which are often impassable during the rains. Through the south-western corner runs the road from Saharanpur to Chakrata, and from thence a branch leads to Kalluwala and Shahjahanpur on the submontane road skirting the foot of the hills and the outer edge of the forest. The only other roads are those connecting Fatehpur and Sherpur on the Mohand road with Muzaffarabad.

NAGAL, *Pargana* NAGAL, *Tahsil* DEOBAND.

The capital of the pargana is a small village which was apparently selected on account of its position rather than for any importance of its own. It stands in 29° 50′ N. and 77° 38′ E. on the road from Saharanpur to Deoband, at a distance of ten miles south-east from the former, and ten miles north from the tahsil headquarters. From the village a branch road runs northwards to Gagalheri in pargana Haraura and a second leads to the Nagal railway station on the North-Western line, this being half a mile to the south-west. The place is one of the stages on the route from Meerut to Mussooree, and there is an encamping-ground on the east side of the road near the village. There is no revenue *mauza* of Nagal, but the site lies partly in Ramdaspur and partly in Badheri Koli, of which the former in 1901 contained 593 and the latter 1,045 inhabitants. The bulk of the population consists of Kolis or Koris, who hold the proprietary right in Ramdaspur, which has an area of 296 acres and

is assessed at Rs. 500, the tenure being *bhaiyachara*. Nagal contains a police station, a post-office, a cattle-pound, a lower primary school and a large temple, which is a conspicuous object from the railway. Markets are held weekly in the bazar and there is a considerable export trade in grain, the place having benefited largely by its situation on the main line.

NAGAL *Pargana, Tahsil* DEOBAND.

This pargana comprises the north-eastern portion of the tahsil, and lies between Rampur on the west and the parganas of Bhagwanpur and Manglaur on the east; to the south is pargana Deoband, and to the north Haraura of the Saharanpur tahsil. It is a fairly compact stretch of country with a total area of 77,505 acres or 121·1 square miles.

The whole pargana belongs to the central upland tract, but it varies somewhat in its physical aspects. The river Hindan flows along the western border for a few miles in a southerly direction and then enters the pargana, cutting off a small portion in the south-west corner. This is included in the tract known as the Katha, the home of the Pundir Rajputs. The Katha villages are the richest in the pargana and are highly cultivated though somewhat deficient in means of irrigation. The Hindan here has a broad bed with well-defined banks, and below this lies a stretch of alluvial *khadir*, for the most part rich and in a high state of tillage; even where covered by sand it is far from unprofitable, owing to the large amount of melon cultivation. The eastern bank of the Hindan is of a very sandy nature and inferior in quality, but the soil gradually changes into a light but fertile loam, varied by clay in the depressions. Two small streams carry down the drainage from the western uplands into the Hindan. The first is the Nalhera, so called from the village of Nalhera Budhakhera, in which it takes its rise: it flows in a shallow bed with rice fields on either side till it reaches the high bank, through which it cuts its way to join the river at Sohanchira. The other is the Sohagni, which rises in the village of that name and drains the south-centre of the pargana, falling into the Hindan close to the Deoband border. In the eastern half of the pargana the level surface is broken by

the two streams of the Kali Nadi which flow southwards to their junction at Dharampur Gujar, whence the river passes into Deoband. The eastern arm of the Kali Nadi possesses a deeper bed than the western: but either stream can be utilised for irrigation, as they carry but a small volume of water and do no injury to the land upon their banks. Between the two branches is a high plot of land containing some of the best as well as the worst estates in the pargana, the surface being undulating and exhibiting a large proportion of sand on the higher levels. Beyond the Kali Nadi to the east is a rich and fertile tract traversed by the Deoband canal, which supplies water to a large number of villages. The benefits accruing from the canals are very great, since this area in former days suffered from a deficiency of irrigation and was hard pressed in seasons of drought.

In the matter of cultivation and general development the pargana bears a close resemblance to Deoband. The area under tillage rose from 61,316 acres in 1866 to 63,296 at the last revision, while during the last five years it has averaged 66,105 acres or no less than 85·29 per cent. of the whole, a proportion which is exceeded in no other part of the district. Very little room remains for further extension. The culturable area is nominally 6,034 acres or 7·79 per cent. of the total: but this includes 898 acres of groves and 2,167 acres of current fallow, while the rest is of little agricultural value. The remaining 5,366 acres is classed as barren, and though it is proportionately the smallest amount in any pargana of the district, it comprises 2,331 acres under water, 2,612 acres permanently occupied by roads, railways, village sites and the like, and only 424 acres of actually useless land. The tract is fairly well supplied with means of irrigation, save in the strip between the two arms of the Kali Nadi, where some of the villages are almost destitute of wells. Elsewhere unprotected wells can be made without difficulty, though the water-level is somewhat low and the life of the wells is seldom more than two years. On an average 14·09 per cent. of the cultivated area is watered, though on occasions the proportion is much larger. Out of 9,312 acres 40·74 per cent. is supplied from the canal and its distributaries, 50·63 from wells, 4·99 from tanks and 3·64 per cent. from the streams, especially the Kali Nadi.

The rice-growing area in several large estates, such as Khajurwala and Basehra, depends solely for its water on the *dabars* or depressions, which are fairly numerous though liable to fail in years of drought.

The two main harvests cover an approximately equal area, though abnormal seasons change their relative position to a marked extent, the *kharif* averaging 37,114 and the *rabi* 36,863 acres, while 9,615 acres or 14·55 per cent. of the net cultivation bears a double crop, this being a far lower proportion than in any other pargana of the district. Of the autumn staples *juar*, sometimes sown with *arhar*, covers 33·61 per cent. of the area tilled in the *kharif*, and this crop is more extensively grown than in any other part. Rice comes next in importance, averaging 24·52 per cent., and two-thirds of this are of the early variety. In the poorer soils there is a large amount of *bajra*, 17·21 per cent., and then follow sugarcane with 9·16, cotton with 5·31 and maize with 2·48 per cent. In former days cotton was much more popular and of late years sugarcane has declined, though its cultivation received a great impetus with the introduction of canals and the varieties here grown are of noted excellence. In the *rabi* wheat has always been pre-eminent and now averages 65·38 per cent. of the area sown, exclusive of 4·7 per cent. grown in combination with gram or barley. This proportion is astonishingly high and is approached only in the neighbouring pargana of Deoband. Gram, with a small admixture of peas, makes up 22·51, and barley, alone or mixed with gram, 4·63 per cent., the remaining crops being of little importance.

The standard of cultivation is high except in the villages held by Gujars, who are numerically the strongest caste. They are found mainly in the eastern half, while the Katha is principally in the hands of the Pundirs. The other cultivators are of a high order, consisting of Kolís, Tagas, Jats, Sainis and Garas : they are greatly assisted by their women in field work, which gives them a decided advantage over the Rajputs and Gujars. The people are in a very flourishing condition, and the standard of comfort is high. The total area included in holdings in 1906-07 was 68,745 acres, and of this 47·27 per cent. is cultivated by proprietors as *sir* or *khudkasht*, a figure which is exceeded only in Deoband and Rampur. The decay of the coparcenary communities, however, is

shown by the fact that ex-proprietors hold 5·87 per cent., which is much above the district average. Occupancy tenants cultivate 15·14 and tenants-at-will 30·75, the remainder being rent-free. The average rental of the privileged classes is Rs. 4-6-6 per acre as compared with Rs. 3-6-8 in 1886, when the occupancy area was 12,599 acres as against the present figure of 10,402. The rate for tenants-at-will has similarly increased from Rs. 4-4-10 to Rs. 6-2-8 a lower figure than in other parts of this tahsil. All the land pays cash rents with the exception of an unimportant area of 381 acres, whereas the corresponding figure at settlement was 2,086 acres.

The revenue as assessed at each revision since 1839, together with the present demand and its incidence, will be found in the appendix.* The total is liable to vary somewhat by reason of the 22 alluvial *mahals* along the Hindan, last assessed in 1904. There are in all 123 villages, at present divided into 365 *mahals*, of which 212 are held in *bhaiyachara* tenure, 35 in single and 62 in joint *zamindari* and 56 are *pattidari*, the imperfect variety prevailing in all but four of these. There are few large proprietors, though several villages have been acquired by Mahajans of Saharanpur: some also belong to the Landhaura estate, some to the Mundlana family and some to the Brahmans of Paharpur. Of late years there has been no extensive alienation, owing to the lightness of the revenue demand and the comparative security of the tract resulting from the introduction of canal irrigation. At the last settlement Gujars held 39 villages or 20·4 per cent. of the total area, aad had already yielded the foremost place to Mahajans who held 22·5 per cent. Next came Tagas, with 11·7, Rajputs with 9·3, Kolis with 9·2, Brahmans with 6·4 and Garas with 3·9 per cent., the rest being principally Ahirs, Jats, Sheikhs, Rors and the Powell family.

The pargana is of recent origin, having been formed in 1855 out of 113 villages belonging to Deoband and nine villages from Katha, which then ceased to exist. The population in 1865 numbered 55,998 souls and, save for a slight drop to 54,537 in 1872, has steadily increased, the total in 1881 being 58,029 and 61,809 ten years later. In 1901 the number of inhabitants was 62,872,

* Appendix, tables IX and X.

including 28,627 females and giving a density of 519 to the square mile. Classified by religions there were 50,284 Hindus, 12,431 Musalmans, a very low proportion for this district, and 157 others. There is no town in the pargana, and the largest villages, Chandaina Koli and Talheri Buzurg, are merely overgrown agricultural settlements. Nagal, the capital, derives its importance solely from its position on the railway and the main road. Communications are somewhat poor. The North-Western Railway and the road, here unmetalled, from Saharanpur to Deoband traverse the centre of the tract and a branch road from Nagal goes northwards to Gagalheri. The north-eastern portion is crossed by the road from Lakhnaur to Manglaur; but the south-east and south-west are wholly devoid of roads, the absence of which is particularly felt in the Katha villages beyond the Hindan.

NAKUR, *Pargana and Tahsil* NAKUR.

The headquarters town of the tahsil lies in the northern borders of the pargana of the same name, in 29° 55′ N. and 77° 18′ E., at a distance of 15 miles from Saharanpur, with which it is connected by a road metalled for half its length. Other roads lead north-east to Sarsawa, south-east to Ambahta and Rampur and south to Gangoh. The place is built on the high bank overlooking the *khadir* of the Jumna, which flows some four miles to the west. Underneath the bank is a large *jhil*, obviously representing an abandoned channel of the river; it is of great value for rice cultivation in the lowlands and also serves a useful purpose in carrying off the drainage of the town, though in wet years it is apt to inundate the lower portions. Nakur is said to be of great antiquity, tradition asserting that it was founded by Nakula, one of the Pandavas, the original name being Nakul. Nothing is known of its subsequent history till the latter half of the 18th century, when it became the headquarters of Rai Singh, one of the Sikh leaders, who employed it as a base from which to harry the surrounding country. The town played a prominent part in the Mutiny history of the district, as already recorded in chapter V. In June 1857 all except the Musalman quarter, in which the police and officials

took refuge, was plundered and burnt to the ground, including the Government offices. When a force arrived from Saharanpur, the Gujars had disappeared, but some of the plunder was recovered from the inhabitants of Fatehpur, a neighbouring village in the *khadir*. The place was rebuilt, but for years has been in a declining state and now bears a dilapidated appearance. The streets are metalled and lined with masonry drains, the chief roadway being the bazar, which traverses the town from east to west. The trade is, however, very insignificant, and little business is done in the weekly markets.

The population of Nakur numbered 4,535 persons in 1865, and has remained more or less stationary. The total dropped to 4,493 in 1872, but rose in 1881 to 4,836 only to fall again to 4,495 ten years later. In 1901 there were 5,030 inhabitants, of whom 2,331 were Hindus, 2,428 Musalmans and 271 of other religions. Banias are the prevailing Hindu caste, and are the owners of Nakur and other property in the neighbourhood. The village lands cover 1,423 acres, of which about 90 acres are occupied by the town itself and 120 acres by groves, which lie chiefly to the north and east: the tenure is *bhaiyachara*, and the revenue is Rs. 3,215. In addition to the tahsil buildings, Nakur possesses a police station, a branch dispensary, a registration office, a post-office and a cattle-pound. There is a flourishing middle vernacular school and a small school for girls. The place also possesses a *sarai* and a fine Jain temple.

Since 1860 the town has been administered under the provisions of Act XX of 1856, while the Village Sanitation Act, 1892, and section 34 of the Police Act are also in force here. In 1907 the number of houses was 1,566, and of these 875 were assessed to taxation, yielding Rs. 1,132 at an incidence of Re. 1-4-8 per assessed house and Re. 0-3-7 per head of population. A small amount is derived from miscellaneous sources, and this with the opening balance brought the total income up to Rs. 1,398, while the expenditure was Rs. 1,224, the chief items being Rs. 474 for the upkeep of the police force numbering seven men, Rs. 384 for the maintenance of a conservancy staff and Rs. 150 for minor improvements.

NAKUR *Pargana, Tahsil* NAKUR.

This pargana lies between Sarsawa on the north and Gangoh on the south, and extends westwards from the borders of Saharanpur and Rampur to the Jumna, which separates it from the district of Karnal. The shifting channel of the Jumna, of which the deep stream forms the boundary, causes the total area to vary from time to time, though to no great extent: the average for the five years ending in 1907 was 70,701 acres or 109·84 square miles.

Like the other parganas of the Nakur tahsil, it is divided into two tracts with well-marked characteristics by the high bank of the river, which is clearly defined throughout and in places assumes the appearance of an abrupt cliff. It forms a succession of loops and bends, doubtless marking old channels of the Jumna, the first of these lying close to the town of Nakur, the second being to the south of Aghiana, while a third penetrates inland for a considerable distance, as far as the village of Mohanpur. At this point a small drainage line from Ambahta and the uplands cuts through the high ground and descends into the *khadir*, there uniting with the Saindli, an irregular watercourse that originates in the large stretch of water collected in the Aghiana loop. The *khadir*, which in this pargana is comparatively narrow, is drained partly by the Saindli and partly by the Budhi, which traverses the northern portion and then unites with the Jumna near Fatehpur Jat. The surface of the ground is cut up by numerous backwaters, depressions and abandoned channels of the Jumna, which are apt to overflow their banks and do some damage in seasons of flood. The soil in most places is a light and fairly productive loam, varied by sand on the banks of the streams and by a stiff clay in the depressions, especially towards the south. In some cases cultivation extends to the Jumna, but as a rule the river bank is covered with barren sand or tamarisk jungle. On the high bank that separates the *khadir* from the upland *bangar* the soil is very light and inferior, while the sandy subsoil renders the construction of wells difficult and the Gujar cultivators are very indifferent husbandmen. Further inland the level surface is broken only by the shallow valley of the Katha, which acts as a very inefficient drainage channel, and has a large area of unreclaimed waste and jungle along its

course; and also by the various depressions, in which the drainage from the Kumharhera and Dhulapra *jhils* in pargana Sarsawa finds its way with difficulty across country. The eastern portion beyond the Katha is irrigated by the Balpur, Tharauli and other distributaries of the eastern Jumna canal and is far superior to the rest of the pargana. The cultivation is better and the crops raised are of good quality: water is within easy reach of the surface, and a much higher stamp of cultivator is to be found than in the Gujar villages to the west.

As a whole the pargana is tolerably well developed, being superior in this respect to Gangoh, though inferior to Sarsawa on the north. The cultivated area, which in 1866 amounted to 44,995 acres, had risen by the last settlement to 51,526 acres, and since that time a further increase has taken place, the average for the five years ending in 1907 being 52,182 acres or 73·81 per cent. of the whole. There is still a large amount of unpromising land, partly marsh and partly sand, in the *khadir* tract, while in the basin of the Katha there is a considerable extent of unreclaimed jungle. The so-called culturable area averages 13,237 acres or 18·72 per cent. of the entire pargana, and although this includes 1,826 acres of current fallow and 708 acres of groves, the proportion of waste is much larger than in most parts of the district. The barren area, 5,228 acres in all, comprises 1,680 acres covered with water, 1,854 occupied by sites, buildings and roads and 1,749 acres of actual sterile land, chiefly in the form of sandy stretches along the Jumna bank. Irrigation is abundant in the eastern part of the pargana; while throughout the uplands the construction of wells is seldom attended with difficulty, for the natural water supply is good, and as a rule within easy reach of the surface. In the moist soil of the *khadir* irrigation is seldom required, but unprotected wells can be dug when necessary. On an average 27·76 per cent. of the net cultivation obtains water, though the figure necessarily depends to a large extent on the nature of the season. The canal supplies 31·01, wells 68·15 and tanks or streams ·84 per cent. of the total irrigation.

The *rabi* is by far the more important harvest, averaging 35,949 acres as against 27,082 sown in the *kharif*, while 11,400

acres or 21·92 per cent. of the actual area cultivated, bear two crops in the year. Of the land sown with spring crops no less than 64·76 per cent. is occupied by wheat, exclusive of 8·12 per cent. under wheat in combination with gram or barley. Gram by itself makes up 17·63 and barley 3·56 per cent., the latter including a small area in which the crop is mixed with gram. The balance consists principally in oilseeds, oats and *masur*, the first being grown to a larger extent than in any other pargana of the district. The main *kharif* product is *juar*, covering 30·05 per cent. of the area, sown either by itself or in combination with *arhar*, and then follow maize with 18·34, rice with 18·25 this being almost exclusively of the late or transplanted variety and *bajra* with 10·4 per cent. Cotton makes up 7·06 and sugarcane 3·63 per cent., the latter being a very low proportion, as is the case throughout the tahsil, and the balance is made up by the autumn pulses such as *urd* and *moth* and by the smaller millets.

Gujars are the chief cultivating caste, as is the case throughout the tahsil, and after them come Jats, Pathans, Sainis, Tagas, Chamars and others. A large proportion of the area, amounting in 1906-07 to 40·04 per cent. out of 54,986 acres included in holdings, is cultivated by proprietors, while 7·19 per cent., or far more than in any other part of the district, is in the possession of ex-proprietary tenants, 10·22 of occupancy tenants and 41·27 of tenants-at-will, the remaining 1·28 per cent. being rent-free. The occupancy area now stands at 5,619 acres, as compared with 8,471 at the time of the settlement. The pargana differs from other parts of the subdivision in that only 872 acres are now held on grain rents, though twenty years ago the area was as much as 4,704 acres. The present cash rate for occupancy holdings averages Rs. 4-14-0 per acre and for ordinary tenants Rs. 5-15-1, the corresponding figures for 1886 being Rs. 3-15-2 and Rs. 4-2-5.

The results of successive settlements, as well as the existing demand and its incidence, will be found in the appendix.* Small variations occur from time to time by reason of the 13 alluvial *mahals*, last assessed in 1906-07 at Rs. 4,953. There is a large

* Appendix, tables IX and X.

amount of nominal revenue, since no less than 6,420 acres are *muafi*, forming the endowment of the shrine of Shah Abdul Maali at Ambahta. It is managed by some of the saint's descendants and the income amounts to Rs. 6,566, being the revenue of 14 whole villages and shares in eight others. The pargana contains in all 137 villages now subdivided into 185 *mahals*, of which 165 are held in *bhaiyachara* tenure. Three are owned by single proprietors, three are joint *zamindari*, four are perfect and ten are imperfect *pattidari*. The Gujars have lost considerably since the introduction of British rule, but still hold 3·66 per cent. of the area. Next come Mahajans with 19·1, Pathans with 15·5, Jats with 8·4, Saiyids with 8·1, Sheikhs with 4·8 and Tagas, who have suffered heavily, with 1·7 per cent., the other castes being of little importance. The chief estate is that of Lala Daya Chand, a Jain of Nakur, while other *zamindars* of note are the Rani of Landhaura, Lachhmi Narayan Dube and Khan Sahib Muhammad Naim Khan of Kailaspur.

The pargana has undergone great changes since the days of Akbar, the most important of these occurring in the early days of British rule. A number of villages were lost at the reconstitution of the boundaries in 1842, while more extensive alterations were effected in 1855. As many as 48 villages were transferred to Sarsawa, two to Saharanpur and one to Gangoh, these comprising 24,972 acres; while on the other hand no fewer than 52 were received from Gangoh, and two each from Sarsawa and Rampur, aggregating 29,207 acres, and leaving a total of 135 villages. In this manner the population rose from 44,934 in 1853 to 51,102 in 1865. By the next census of 1872 it had dropped to 50,591, but by 1881 it had again risen to 54,662. Ten years later a decline was once more observed, in common with the rest of the tahsil, the total being 52,160; but in 1901 the pargana contained 54,707 inhabitants, of whom 25,191 were females. Hindus predominate to a greater extent than in the northern and eastern parganas, numbering 37,329, as against 16,596 Musalmans and 782 of other religions.

In addition to the little towns of Nakur and Ambahta, the pargana possesses the large villages of Islamnagar and Khera Afghanan, but there is no other place of any size.

Means of communication are confined to unmetalled roads, of which there is a fair number in the centre and east, the *khadir* being most inaccessible, especially during the rains. The road from Saharanpur to Gangoh traverses the pargana in a south-westerly direction, passing through Ambahta, where it is crossed by a road connecting Nakur with Rampur. Other roads lead from Nakur to Gangoh on the south to Saharanpur on the east, closely following the northern boundary and to Sarsawa on the north. The Jumna is crossed by two ferries near the villages of Fatehpur Jat and Saidpura.

NAKUR *Tahsil.*

This is the western tahsil of the district and comprises a long and narrow stretch of country lying between the western Jumna canal and the Jumna, the latter separating it from the districts of Umballa and Karnal in the Punjab. It extends from pargana Faizabad of the Saharanpur tahsil on the north to the Muzaffarnagar boundary on the south, while to the east lie the parganas of Saharanpur and Rampur. The total area is liable to vary slightly by reason of the changes in the course of the Jumna, the average for the five years ending in 1907 being 274,024 acres, or 428·16 square miles. The tahsil contains the four parganas of Sultanpur, Sarsawa, Nakur and Gangoh, each of which forms the subject of a separate article. It is divided into two main tracts by the high bank of the Jumna, the uplands to the east forming the larger portion, while the low *khadir* varies in width from two to eight miles. The former in many respects resembles the rest of the district, though the soil is parhaps not so rich as in the central pargana and the development of the country is hampered in many places by defective drainage, especially along the course of the Katha river in Nakur and Gangoh and in the neighbourhood of the great Dhulapra *jhil* in pargana Sarsawa. The *khadir* is somewhat imperfectly drained by the Sapolia and Maskara in the north, the Budhi in the centre and the Saindli in the south. The soil is principally light and sandy, while the surface is constantly broken by depressions and watercourses marking the abandoned channels of the Jumna. The better portions of the *khadir* are fairly

productive and more or less secure against the effects of drought, but in the immediate neighbourhood of the river there are large expanses of barren sand or tamarisk jungle.

In point of population the tahsil is the smallest in the district, but the number of inhabitants has increased fairly rapidly during the past fifty years. The total rose from 170,836 in 1853 to 185,789 in 1865, to 189,022 in 1872 and to 201,622 in 1881. A decline then set in, as was also the case in the adjoining tahsil of Deoband, and in 1891 the population numbered 192,687. The recovery was, however, complete during the ensuing decade, for in 1901 the tahsil contained 203,494 inhabitants, of whom 94,461 were females. Classified according to religions there are 131,799 Hindus, 69,732 Musalmans, 1,779 Jains, 113 Aryas, 48 Christians and 23 Sikhs. The composition of the population in many respects differs from the rest of the district. Of the Hindu castes Chamars 40,679, and Gujars 15,500, alone occur in numbers exceeding 10,000 the castes next in order being Malis 9,558, Kahars 9,160, Brahmans, 8,416, Bhangis 7,236 and Banias 6,260. A noticeable feature is the comparative absence of Rajputs, only 2,468 persons of this caste being enumerated, almost all of whom are Chauhans. Among the Musalmans the lead is taken by Gujars with 10,876 representatives, and then follow Garas with 7,059, Julahas with 6,900, Telis with 5,960 and Sheikhs with 5,314. Other castes occurring in strength are converted Chauhans, Pathans, Faqirs, Qassabs, Kumhars and Saiyids. There is a fair number of Mughals, principally Turkomans of the Lakhnauti colony.

The tahsil is more essentially agricultural than any other part of the district, and according to the census returns nearly 54 per cent. of the people were directly dependent on cultivation, while an additional 10 per cent. came under the head of general labour. There are no industries of any importance, with the possible exception of cotton weaving, for which Gangoh is particularly noted. This is due principally to the absence of large towns, though the tahsil possesses no fewer than eight places administered under Act XX of 1856, namely, Nakur, Gangoh, Sarsawa, Ambahta, Lakhnauti, Titron, Sultanpur and Chilkana. All these are in a state of decay excepting

perhaps Gangoh and Ambahta: in former days Sarsawa was a place of some importance owing to its situation on the old high road to the Punjab, but since the construction of the railway its trade has practically disappeared.

Means of communication are fair save in the *khadir* tract, which is very remote and inaccessible, especially during the rains. The main line of the North-Western Railway from Saharanpur to Umballa traverses the northern half of the tahsil, passing through the station of Sarsawa and crossing the Jumna by a bridge near Rajghat. The town of Sarsawa is connected with the railway by a metalled road, practically the only one in the tahsil. The chief unmetalled roads comprise those from Saharanpur to Sultanpur, to Sarsawa and Umballa, and to Ambahta, Gangoh, Lakhnauti and Karnal, with a branch to Nakur; from Sultanpur to Sarsawa, Nakur, Gangoh, Titron and Muzaffarnagar; from Nakur to Ambahta and Rampur and from Gangoh to Nanauta and Deoband. The construction of the light railway from Saharanpur to Shahdara will largely benefit the tahsil, since it passes within easy reach of the eastern border. Save for the railway bridge, the Jumna has to be crossed by ferries, for which reference may be made to the appendix: they are under the management of the Punjab authorities. In the appendix, too, will be found lists of the markets, fairs, post-offices and schools of the tahsil.

Nakur forms a subdivision in charge of a full-powered magistrate on the district staff, subordinate to whom is the tahsildar: at the present time there are no honorary magistrates. For the purposes of civil justice the tahsil is included in the jurisdiction of the munsif of Saharanpur. Under existing arrangements there are police stations at Chilkana, Sarsawa, Nakur, Gangoh and Bassi. The circles do not include the whole area, as a portion of pargana Sarsawa is included in Saharanpur and the eastern villages of Gangoh are divided between the circles of Rampur and Nanauta. The changes to be effected under the new scheme involve the abolition of the Sarsawa and Bassi stations, and the amalgamation of their circles with those of Chilkana and Gangoh respectively.

NANAUTA, *Pargana* RAMPUR, *Tahsil* DEOBAND.

A small town in the south of the pargana, standing in 29° 43′ N. and 77° 25′ E., on the south side of the unmetalled road leading from Deoband to Gangoh, which is here crossed by a similar road from Saharanpur to Jalalabad in the Muzaffarnagar district; at a distance of six miles south from Rampur, twenty miles from Saharanpur and sixteen miles due west from the tahsil headquarters. The light railway from Saharanpur to Shahdara passes to the east of the town, the Nanauta station being some two miles off on the Deoband road. The place is built on a raised site surrounded by depressions and irrigation channels from the Jumna canal, which flows two miles to the west. The lands of Nanauta are very extensive, covering as much as 3,805 acres, of which 140 acres are under groves, which almost surround the site. The proprietors are Pathans, Saiyids and Sheikhs, holding in *bhaiyachara* tenure.

Though of considerable antiquity and formerly of much importance, the place is in a very decayed condition and presents a ruinous aspect. It is said to have been founded by one Nanu, a Gujar chieftain who was subsequently expelled by a Raja Ram of Rampur. In the time of Akbar it was the capital of a pargana which remained in existence till 1842, when the component villages were distributed between Rampur and Gangoh in this district and Jhinjhana and Thana Bhawan in Muzaffarnagar. At the end of the eighteenth century the town was constantly raided by the Sikhs from the Punjab, and to this fact is ascribed its present dilapidated condition. At that time the Sheikhs of Nanauta, who were descended from one Miran Bara, were people of great wealth, and it was doubtless their prosperity that attracted the attention of the Sikhs. To this day the town commonly goes by the name of Phuta Shahr, or the broken-down city, and the appellation is certainly most appropriate.

The downward tendency is further illustrated by the decline in population from 4,887 in 1872 to 3,997 in 1881, and to 3,700 in 1891. At the last census, however, a considerable improvement was observed, the total being 4,567 persons of whom 2,310 were Musalmans, 2,122 Hindus and 135 of other religions. The

inhabitants are mainly agriculturists engaged in cultivating the village lands, a considerable proportion of which are in the hands of the *zamindars* themselves. Markets are held weekly in the bazar, but the trade is of little importance. Nanauta possesses a post-office, a cattle-pound and an upper primary school, the police station having recently been abolished. Since 1860 it has been administered under Act XX of 1856, and the provisions of the Village Sanitation Act, 1892, were subsequently applied. In 1907 the place contained 1,366 houses, of which 688 were assessed, the income from the house-tax being Rs. 899, which gave an incidence of Re. 1-4-10 per assessed house and Re. 0-3-2 per head of population. With the addition of the opening balance and the small miscellaneous receipts, the total income for the year was Rs. 1,144, while the expenditure was Rs. 953, the principal items being Rs. 434 for the upkeep of the six men of the local police force, Rs. 215 for the maintenance of a conservancy staff and Rs. 166 for minor improvements.

NARSAIN, *Pargana* MANGLAUR, *Tahsil* ROORKEE.

There are two villages of Narsain, distinguished as Kalan and Khurd, of which the larger stands in 29° 42′ N. and 77° 50′ E., at a distance of some six miles south-west from Manglaur and two miles west from Muhammadpur on the Ganges canal, while Narsain Khurd adjoins it on the north-east. The place contains a lower primary school, but is noticeable only for the size of its population, the number of inhabitants in 1901 being 2,544, while that of Narsain Khurd was 701. The cultivators are principally Jats, who have the advantage of abundant canal irrigation, though the soil is in places marred by sandhills. On the west of the main site is a depression, drained by a cut leading westwards into the Sila. Jats own almost the whole of Narsain Kalan, which is divided into six *mahals* of the *bhaiyachara* type and is assessed at Rs. 2,755: the total area is 1,357 acres, of which some 1,175 are cultivated. Narsain Kalan is much smaller, being only 484 acres in extent: it pays a revenue of Rs. 1,033, and is owned by Gujars, Mahajans and Brahmans, a portion belonging to Babu Joti Prasad Bhargava.

PANIALA, *Pargana* BHAGWANPUR, *Tahsil* ROORKEE.

A large village standing in 29° 51′ N. and 77° 51′ E., about two miles due west from the Roorkee railway station and 20 miles east from Saharanpur. It had in 1872 a population of 2,271 persons, while at the last census the total was 2,264, including 821 Musalmans. The place consists of a small bazar lined with shops, and a number of mud houses. There are many resident Banias and a large trade is carried on in grain, though many of the dealers have transferred their business to Roorkee within recent years. The site is well raised: but on the east there is a large water-hole, about three-fourths of a mile long and 600 yards wide, excavated to make bricks for the canal. The western side of the village lies low and the water finds its way with difficulty into the small channel called the Sila. The drainage of the depressions adjoining the site has recently been effected at a cost of Rs. 5,000. The village lands were formerly held by Rajputs, who still retain the largest share, the rest being in the hands of Mahajans, Gujars, Brahmans and others. The area is 1,271 acres, of which about 1,270 are cultivated, while the revenue demand is Rs. 2,394.

RAIPUR, *Pargana* FAIZABAD, *Tahsil* SAHARANPUR.

A village on the left bank of the Jumna canal, standing in 30° 15′ N. and 77° 35′ E., at a distance of 22 miles north from Saharanpur and three miles north of the Gandewar bridge, which carries the Chakrata road over the canal. On the south side of the village flows the Raipur torrent, which is carried into the canal, and opposite the point of entry is an escape leading into the Budhi Jumna. For controlling floods there is a set of regulating sluices on the canal; but the torrent has caused much trouble and anxiety in the past, and has necessitated the expenditure of large sums on protective works. A short distance above the sluices the canal is crossed by an iron bridge leading into the village. Raipur possesses a post-office and a lower primary school, but is otherwise of little importance. The population in 1901 numbered 1,821 souls, of whom 1,117 were Musalmans. The village lands, which cover 534 acres and are assessed at Rs. 675, are held in *pattidari* tenure by a well-known family of converted Chauhans.

RAJUPUR, *Pargana and Tahsil* DEOBAND.

A large village in the extreme east of the pargana, standing on the high left bank of the Sila, in 29° 40′ N. and 77 48′ E., at a distance of six miles east from Deoband and 26 miles from the district headquarters. The site is well raised, but to the south there is a swampy depression and in this neighbourhood the water-level has risen since the introduction of canal irrigation, with the result that fever is very prevalent. The population of the village, which numbered 2,773 souls in 1872, had risen by the last census to 3,174, of whom 1,589 were Musalmans. The principal Hindu residents are Banias, and in the bazar there is a number of good brick-built houses and shops: markets are held daily, but the chief day is Thursday in each week. The place also contains an upper primary school, a mosque and a number of Hindu temples. The area of the village is 640 acres, including a large amount of grove land to the east of the site; irrigation is plentiful and is obtained from the right main distributary of the Ganges canal, which flows about a mile to the east. The owners are Sheikhs, holding in revenue-free tenure: though now in comparatively reduced circumstances, they were once people of affluence. They claim descent from a holy man named Sheikh Raju, the founder of the place. Chief among his descendants was Sheikh Kalan, celebrated in the fiscal history of the district as a great farmer of the Landhaura estate. Reference has been made to his exploits in chapter IV. His sons, Najabat Ali Khan and Zamin Ali Khan, followed in his footsteps, but were compelled to relinquish their ill-gotten gains at the first regular settlement.

RAMPUR, *Pargana* RAMPUR, *Tahsil* DEOBAND.

The capital of the Rampur pargana is a town of considerable size standing in 29° 48′ N. and 77° 27′ E., on the west side of the road from Saharanpur to Nanauta and Shamli, at a distance of thirteen miles from the district headquarters and seventeen miles from Deoband. Branch roads lead south-east to Badgaon and north-west to Ambahta and Nakur, while to the east of the town is a station on the light railway from Shahdara to Saharanpur and a mile and a half to the west flows the eastern Jumna canal, several

distributaries of which intersect the town lands. The site is low and the canal has caused the water-level to rise, with the result that it was found necessary to construct a large drain leading from the southern outskirts to the Kirsani.

Rampur is said to derive its name from a chieftain named Raja Ram, who is believed to have established a large principality, though he is unknown to history. Tradition, too, states that the town was captured, like Deoband, by Saiyid Salar Masaud: but the story seems altogether improbable. In the days of Akbar it was the capital of a pargana, but its annals are extremely meagre. The place has its own Musalman saint in the person of Sheikh Ibrahim Pir, whose *dargah* is the scene of an annual religious assemblage. During the last fifty years the town has fluctuated; but of late there has been a marked recovery, and its prosperity will doubtless be increased with the introduction of railway communication. The population in 1847 numbered 4,163 souls, but rose to 6,566 in 1853 and to 8,464 in 1865. Then it declined steadily, falling to 8,234 in 1872, to 7,951 in 1881 and to 7,037 ten years later. In 1901, however, the number of inhabitants was 7,945, of whom 3,734 were Hindus, 3,569 Musalmans and 642 of other religions. The last are principally Jains, who are a flourishing community and have erected a fine temple with a gilt spire.

Of the Musalmans the most numerous are the Garas, who own the town lands. The latter are 3,234 acres in extent and pay a revenue of Rs. 5,675, while 185 acres are revenue-free. Some 125 acres are under groves, which surround the main site, and, with the numerous gardens, give the place a picturesque appearance. Within the town the houses are closely crowded together and for the most part are built of mud, along narrow and tortuous lanes. The main thoroughfare is the bazar which lines the Nakur road and contains a number of good brick houses, some of which have fine fronts, notably those inhabited by the Saraugi Jains. These people hold most of the trade, doing a large trade in grain: markets are held weekly on Thursdays. The manufactures of the place include country saddles and glass bangles, which are turned out in some quantity by the Manihars. Rampur possesses a police station, a dispensary, a post-office, a cattle-pound and a middle vernacular school.

The town has been administered under the provisions of Act XX of 1856 since 1860, while subsequently the Village Sanitation Act, 1892, has been applied to the place. It contained in 1907 a total of 1,934 houses, of which 1,368 were assessed, the house-tax yielding Rs. 1,820, with an average incidence of Re. 1-4-5 per assessed house and Re. 0-3-8 per head of population. The total income, including the opening balance and some miscellaneous receipts, was Rs. 2,695, while the expenditure was Rs. 2,280. The latter, which is practically the same as the average for the preceding five years, was mainly devoted to the upkeep of sixteen *chaukidars*, Rs. 896, the maintenance of a conservancy staff, Rs. 588, and minor improvements to the amount of Rs. 500, principally for street paving and lighting.

RAMPUR *Pargana, Tahsil* DEOBAND.

This pargana, which derives its name from the town of Rampur, constitutes the western portion of the tahsil, being bounded on the east by Nagal and Deoband and on the west by Nakur and Gangoh. To the north lies pargana Saharanpur, of which this is geographically a southern continuation, extending as far as the Muzaffarnagar boundary. Its extreme length is about 16 miles and the greatest breadth is a little more than nine miles from east to west. The total area is 82,361 acres or 128·69 square miles.

The whole tract forms a low and almost level plain, along the western borders of which runs the eastern Jumna canal which, with its numerous distributaries, supplies water for irrigation purposes to almost every village. Down the centre flows the Kirsani in a tortuous and sluggish course. At first a petty rivulet, this stream increases in depth and width towards the south, and on either bank is a narrow belt of *khadir*, fertile in places, but liable to submersion, and for the most part neglected. The other rivers comprise the Hindan, which for a few miles forms the boundary in the north-eastern corner, and the Kali, which rises in a depression between the former river and the Kirsani, thence flowing southwards in a very irregular course through the eastern half of the pargana till it enters Deoband near Badgaon. The Kali has a well-defined bed with a small *khadir* on either side, resembling that

of the Kirsani, though less adequately drained. The Hindan is here a river of considerable size, attaining larger dimensions during the rains; it causes some damage by floods, but the *khadir* area in this pargana is very small. The natural drainage lines in the eastern half perform their functions satisfactorily and have been greatly improved by the Canal department. In the west the absence of natural watercourses has occasioned considerable trouble, which has been enhanced by the interruptions caused by the canal and its distributaries. Some use has, however, been made of the old bed of the canal, which winds through the low ground near the western boundary, drainage cuts having been excavated on either side, one leading from Anantmau into the Katha, while another runs south-east past Nanauta into the Kirsani. Numerous minor channels have also been made from time to time, which drain more or less effectually, according to the season, the low waterlogged lands along the course of the canal. There is still room for further improvement, as in several places the fertility of the land has been impaired by saturation, owing either to imperfect drainage or to the abuse of canal water. In the south, too, a good deal of waste has still to be reclaimed, especially in the tract to the south and east of Nanauta, where are extensive stretches of *dhak* and palm jungle.

Apart from these disadvantages, Rampur is a fertile and fairly prosperous tract, though it suffers in common with Saharanpur from the malarious nature of the climate. There is no danger of drought with so much canal irrigation and the high water-level, though this operates adversely on the wells, those of the unprotected type lasting but a short time. The soil is generally good and well suited for the superior staples. As in Saharanpur it is either a productive loam or a stiff clay, the latter being found in the depressions and utilised for rice cultivation. The proportion of sand is very small, and the *bhur* areas are confined to the high bank of the Hindan and the vicinity of the Kali.

The cultivated area, which in 1866 amounted to 59,537 acres, had risen, after a somewhat lengthy period of depression, to 61,751 acres at the last settlement, while subsequent years have witnessed a further increase, the present average being 64,710 acres or 78·57 per cent. of the entire pargana. There is

still a certain amount of waste, for 10,156 acres or 12·33 per cent. are shown as culturable, though this includes 1,237 acres of groves and 1,817 acres of current fallow or land prepared for sugarcane. Of the barren area, 7,495 acres in all, 3,676 are covered with water and 2,486 are occupied by village sites, roads and the like. A certain amount of land is still unculturable on account of saturation, which has resulted in the appearance of *reh*, and the jungle tracts would never repay reclamation. Almost the whole of the pargana is within reach of canal water, and consequently means of irrigation are abundant, the only difficulty arising from a somewhat inadequate supply in years of drought, though this is due rather to the waste of water in some estates than to any shortcomings on the part of the canal. Wells are fairly numerous, but the majority have been thrown out of use, while the saturation of the subsoil has damaged those of the unprotected type. On an average 57·76 per cent. of the cultivated area is irrigated, and no other pargana of the district can show a proportion approaching this figure, which in some years is very much higher. Out of 35,434 acres, the annual average for the five years ending in 1906-07, the canal supplied 95·66 per cent., wells 3·12 and other sources 1·22 per cent.

As in Deoband, the *rabi* harvest largely exceeds the *kharif* in point of area, the averages being 46,642 and 39,021 acres respectively. Wheat is, as usual, the chief spring crop, covering 60·49 per cent. of the area sown, while an additional 12·89 per cent. is occupied by wheat in combination with gram or barley. The latter by itself or mixed with gram takes up 4·01 and gram 18·34 per cent., including a small amount of peas, the remainder consisting of oats, *masur* and garden crops. In the *kharif* rice largely preponderates, occupying 39·63 per cent. of the area sown, and two-thirds of this are taken up by the finer kinds of the transplanted variety. Next follow *juar* and *arhar* with 20·92, maize with 11·96, sugarcane with 9·49, *bajra* with 4·2 and cotton with 3·95 per cent. The sugarcane is of excellent quality and the area continues large, although in recent years there has been some decline. Double-cropping is far more widely practised than in the rest of the tahsil and now extends

to 33 per cent. of the net cultivation, a figure which is exceeded in none of the central or southern parganas.

The standard of husbandry is generally high and in some villages the cultivation is excellent. The old pargana of Rampur is mainly in the hands of Gujars, while the Katha tract is held by Pundirs. The latter have improved greatly of late years, readily cultivating their own fields and carrying on a considerable business in horse-breeding. Other important castes are Garas, Sainis and Brahmans. As in Deoband, there is a remarkable amount of proprietary cultivation, which takes up 49·06 per cent. of the total area of 66,824 acres included in holdings in 1906-07. Of the rest 4·21 is in the hands of ex-proprietors, 9·98 of occupancy tenants, 36 of tenants-at-will and ·75 per cent. is rent-free. The occupancy area, 6,672 acres in all, is proportionately the smallest in the district, and has decreased from 8,664 acres in 1886 and 7,675 twenty years earlier. Rents are paid almost invariably in cash, only 367 acres being grain-rented, as compared with 5,533 at the time of settlement. The rent-rate is generally high, having risen from Rs. 4-2-3 to Rs. 5-2-10 for occupancy holdings and from Rs. 5-0-1 to Rs. 7-8-1 for tenants-at-will, the latter figure being exceeded only in the Saharanpur pargana.

The results of successive assessments since the first regular settlement, together with the present demand and its incidence, are shown in the appendix.* There are seven alluvial *mahals* along the Hindan, and these were last assessed at Rs. 832 in 1904. The pargana contains 135 villages, now divided into 339 *mahals*, of which 192 are of the *bhaiyachara* type, 25 are held by single proprietors, 60 are joint *zamindari*, 20 are perfect and 42 are imperfect *pattidari*. The bulk of the area is still in the hands of the old coparcenary communities, though a few villages have been acquired by Mahajans of Saharanpur and elsewhere, in most cases at the expense of the Gujars, while two belong to the Powell family: there are no large resident proprietors. At the last settlement Gujars held 29·9 per cent. of the area, Rajputs 23·4, Mahajans 16·3 and Sheikhs 5·6 per cent., while smaller amounts were in the hands of

* Appendix, tables IX and X.

Europeans, Brahmans, Pathans, Saiyids, Jats, Rors, Garas, Tagas and others.

Rampur gave its name to a pargana at least as early as the days of Akbar: but the area has undergone many changes, especially during the past century. In 1842 one village was transferred to Muzaffarnagar and seven were received from that district, but more alterations occurred on the reconstitution of the boundaries in 1855. In that year the old pargana of Katha was abolished and eight of its 37 villages were assigned to Rampur, while seven others were received from Gangoh, three from Saharanpur and one from Deoband. The total was reduced to 138 by the transfer of eleven to Gangoh, six to Saharanpur, three to Deoband and two to Nakur, the net result being a gain of 3,874 acres.

The population of the reconstituted pargana at the census of 1865 was 74,525 souls and for a long time it remained stationary, the total being 74,726 in 1872 and 74,810 in 1881. Ten years later a considerable decline was found to have occurred, as was the case in all the western parganas, the total being 68,688. By the last census in 1901, however, the recovery was complete, the number of inhabitants being 75,628, of whom 35,074 were females, the total including 59,265 Hindus, 14,614 Musalmans, the proportion of the latter to the whole population being lower than in any other part of the district, and 1,749 others. The tract contains the two towns of Rampur and Nanauta, which have been separately described, while Tikraul on the south-western border and Morah in the south-eastern corner both contain more than 2,000 inhabitants, though they are merely agricultural villages of no special importance. Means of communication have been much improved by the construction of the metre-gauge line from Shahdara to Saharanpur, which traverses the centre of the pargana and has stations at Nanauta and Rampur. Parallel to this runs the unmetalled road from Shamli in Muzaffarnagar to Saharanpur, and this is crossed near Nanauta by the road from Deoband to Gangoh and at Rampur by that from Badgaon on the latter road to Ambahta and Nakur. The north-western portion is devoid of roads, and is as badly off in this respect as the adjoining parts of pargana Nagal.

RANDAUL, *Pargana and Tahsil* SAHARANPUR.

A village situated in 30° 6′ N. and 77° 35′ E., in the extreme north-west of the pargana, on the right bank of the Randaul *rajbaha* of the Jumna canal and half a mile from the main line. Both the *rajbaha* and the canal are bridged here, giving access to the Saharanpur-Chakrata road which runs about two miles to the south-east, Randaul lying at a distance of eleven miles from Saharanpur. The village lands have an area of 1,799 acres, and are held at a revenue of Rs. 3,000 in *pattidari* tenure by a body of Chauhans. To the south of the village there is a large area under groves which cover nearly fifty acres. The village possesses ample means of irrigation from the canal and its distributary, more than half of the cultivated land being thus watered. The cultivators are chiefly Chauhans, a fair proportion of the village being cultivated by the proprietors themselves. The population in 1901 numbered 2,447 persons, of whom 1,770 were Hindus, 637 Musalmans and 40 Jains. There is a lower primary school here, but nothing else of any interest.

RANKHANDI, *Pargana and Tahsil* DEOBAND.

This very large village lies on the southern borders of the pargana, in 29° 32′ N. and 77° 40′ E., at a distance of six miles south from Deoband and 26 miles from the district headquarters. There is no regular road, but rough tracks lead to Deoband and to Ambahta Sheikha, the latter crossing the canal about two miles to the west. The main site is built on the right bank of the small stream called the Imlia, which carries much of the Deoband drainage and is apt to damage the lower lands in its vicinity. Along its banks the land is poor, but elsewhere it is well cultivated and possesses an ample supply of irrigation from the canal and wells, a small branch from the former traversing the centre of the village. The total area is 2,376 acres, including 54 acres under groves, and the revenue is Rs. 4,000; the proprietors are a *bhaiyachara* community of Pundir Rajputs. The population at the last census was 3,710, of whom 317 were Musalmans; the total including that of the hamlet of Kheri Jhunka to the north of the principal site. Rankhandi possesses a large upper primary school, but nothing else of interest except

the tomb of a Musalman saint named Shah Azim-ud-din, to the west of the village.

ROORKEE, *Pargana and Tahsil* ROORKEE.

The important town and cantonment of Roorkee stands in 29° 51′ N. and 77° 53′ E., on the right or south bank of the Solani at a distance of 22 miles east from Saharanpur. The town proper is situated on the high ground above the river on the right bank of the Ganges canal, which is crossed by a bridge carrying the provincial road from Meerut and Muzaffarnagar to Mohand and Dehra, passing through the main bazar. On the east side of the canal are the civil lines and to the south of these the cantonment, the latter being a rectangular area bounded on the west by the canal and on the south by the Oudh and Rohilkhand Railway. This crosses the canal by a bridge, and on the west side is the railway station, communicating with the cantonment by a metalled road. Through the cantonment and the civil lines runs the provincial road, from which numerous branches lead to all parts of the station. Unmetalled roads lead from Roorkee to Jabarhera on the south-west, to Dausni and Laksar on the south-east and to Jwalapur and Hardwar on the north-east, in addition to a good road, not available for heavy traffic, which crosses the Solani by the great aqueduct and follows the canal to Dhanauri and Jwalapur.

The place is of some antiquity and is locally said to derive its name from Ruri, the wife of a Rajput chieftain. It was the capital of a pargana in the time of Akbar: but there are no old buildings, and on the British occupation it was a mere mud built village. It was raised from this obscure position by the establishment in 1852 of the canal workshops and iron foundry, situated in the civil lines on the canal bank and already described in chapter II. Before that date the civil engineering school, now known as the Thomason College, had been started tentatively in 1847, though it did not assume its present form till after the Mutiny. The cantonment dates from 1853, when the Bengal Sappers and Miners were first stationed here, British troops not arriving till 1860. For a time an infantry regiment was cantoned at Roorkee, but its place has long been taken by

two or more companies of the Royal Garrison Artillery. The church was built in 1852, and three years later a branch of the Dehli mission was established here by the Society for the Propagation of the Gospel, though it did not become a regular station till 1861. In 1859 a cantonment magistrate was appointed to Roorkee, but subsequently he was relieved of a large portion of his duties by the appointment of a covenanted civilian as resident joint magistrate and subdivisional officer. The latter is vice-chairman of the municipal board, a member of the cantonment committee and judge of the small cause court.

The population has grown very rapidly since 1847, when it numbered 5,511 persons. It rose to 8,592 in 1853 and though it had dropped to 7,588 in 1865, it was 10,778 in 1872 and 15,953 in 1881, while ten years later it was 17,367. At the last census in 1901 the municipality contained 14,197 souls, of whom 8,038 were Hindus, 5,157 Musalmans, 541 Christians, 97 Jains and 364 of other religions, chiefly Aryas and Sikhs. The cantonment population numbered 2,951, including 1,218 Hindus, 1,040 Musalmans and 693 others.

The town is of considerable size, with broad metalled roads meeting at right angles and lined with shops. In the centre is an open *chauk* or market-place, surrounded with good masonry houses. The outer portions are generally occupied by mud dwellings, the poorest part being to the north, where the site extends into the low valley of the Solani. The streets are lined with open saucer drains leading down to the lowlands, and these are regularly flushed with water pumped up from the canal. The health of the place is remarkably good. After seasons of abnormally heavy rain fever is always prevalent in September and October, but epidemics of cholera and other diseases are practically unknown. The water supply is derived wholly from wells, save in the case of the Thomason College, which is served by a recently-constructed waterworks on the banks of the canal.

The civil lines contain in the north the canal foundry and workshops with their dependent buildings, while between the canal and the provincial road are numerous bungalows, the club and other institutions, and to the east of the road is a large open space on which stands the handsome range of buildings of the

Thomason College surrounded by workshops, laboratories and the residences of the officials and students. In the centre of the cantonments are the artillery barracks and to the east the lines and workshops of the 1st Prince of Wales' Own Sappers and Miners, the southern portion consisting of a wide expanse of open country utilised as a parade-ground.

The other public institutions of Roorkee comprise the subdivisional courts and offices, the tahsil buildings, the police station, the post-office, the dispensary, originally started in connection with the canal works and taken over from the department in 1869, and a cattle-pound. There is also a military station hospital in the cantonment with a native dispensary opened at first for the Sappers and Miners of the garrison. In the civil lines are the local headquarters of the Society for the Propagation of the Gospel, which supports an orphanage, while other mission work has recently been undertaken by the American Episcopal Methodist Church. There is in Roorkee an anglo-vernacular school under private management, named after Major Orman, a former cantonment magistrate. A branch lower primary school is maintained in the town by the municipality, while there are at present five indigenous schools and an aided school for girls supported by the Arya Samaj.

The town and cantonment were administered under Act XX of 1856 from 1860 till 1879, when the former, including the civil station, was created a municipality. The board consists of 13 members, including the district magistrate as chairman, the subdivisional officer as vice-chairman and two persons appointed by Government, the remainder being elected by the rate-payers. The principal source of income is an octroi-tax on imports, which is collected both for the municipality and the cantonment, the proceeds being divided according to their respective populations. There is also a house-tax, and considerable sums are realised from the rents of houses and lands, from the cattle-pound and from other sources, such as the sale of manure and licenses for hackney carriages. Details of the receipts and expenditure for each year since 1890-91 will be found in the appendix.* There is the usual cantonment committee, which disposes of an income

* Appendix, table XVI.

of some Rs. 6,000 annually, derived partly from the octroi, partly from a conservancy-tax and partly from rents and the like.

The fiscal history of Roorkee is of some interest. From about the middle of the eighteenth century it was included in the estate of the Gujars of Landhaura, and remained in their possession till Raja Ramdayal died in 1813. The town and seventeen dependent villages were then settled with the old Rajput proprietors, though no inquiry was made into individual rights either on that occasion or at subsequent settlements. Eventually some of the owners, whose numbers had rapidly increased, became indebted to Sheikh Kalan of Rajupur and his sons. They were sued and a decree was awarded the plaintiffs for possession of the debtors' shares. These had been conveyed to the Sheikhs by a deed of conditional sale, in which the shares were recorded more for the sake of form than for anything else, as the third portion of the sixth division of the town of Roorkee, one-twentieth and one-fortieth of Akbarpur and one-half of Salempur in the case of two debtors, while the third was said to own the sixth division of Roorkee, half of Rampur and one-fourth of Akbarpur. Possession was given to the Sheikhs on these terms in 1824 without any kind of investigation. The next year, however, it was ascertained that a large number of sharers had been excluded, but it was ruled by the Board of Revenue that redress only lay through an appeal to the provincial court at Bareilly, which was then so difficult of access that the Rajputs were unable to undergo the trouble, danger and expense of the journey. At the settlement in 1838 the mistake was partially remedied, for thirteen villages were settled with the Roorkee *zamindars* and in two others they were awarded a *malikana* of five per cent. on the revenue, the engagements being taken from the actual resident proprietors.

ROORKEE *Pargana*, *Tahsil* ROORKEE.

The Roorkee pargana occupies the central portion of the tahsil, being bounded by Manglaur on the south, Jwalapur on the east and Bhagwanpur on the west, while on the north it extends to the crest of the Siwaliks and the district of Dehra Dun. All the hill portion is included in the reserved forest, and this

extends southwards so as to take in a considerable part of the submontane tract. The total area is 79,262 acres or 123·85 square miles, apart from the forests.

Only the south-west corner of the pargana, including the town of Roorkee, belongs to the central upland plain. The high bank overlooks the valley of the Solani, which flows in a broad bed immediately under the cliff, above which the soil is of the usual light and sandy description. Further inland the surface is no longer cut up by ravines but is perfectly level, and the soil is a good fertile loam, though irrigation is difficult on account of the great depth of the water level and the height of the fields above the channel of the canal. The rest of the pargana is very diversified in character. Immediately below the hills is the *ghar*, here consisting of a succession of spurs and plateaux separated by numerous valleys of varying width, down which the hill torrents find their way to the plains. These torrents unite to form two main streams, the Pathri in the east and the Ratmau in the centre. In the valleys there is a certain amount of fair cultivation; but the high ground on either side is extremely broken and irregular, the soil is poor, irrigation is practically unknown and the population is very sparse. The cultivated area is consequently restricted and the produce is inferior and, though the rainfall is usually heavy, the drainage is so rapid that the crops suffer and the soil is impoverished. The main spur between the Ratmau and the Solani extends as far as the town of Roorkee. Between its southern edge and the Solani is a broad strip of *khadir*, traversed by the Sipia and some minor streams: it is subject to the denudating action of the river, but when removed from its influence the lands bear good crops without the need of irrigation. The submontane tract in the east, between the Ratmau and the Pathri, passes rapidly into a stretch of marshy lowlands, flanked on the east by the Pathri forest. The soil is a rich loam in the west, and this changes gradually to clay in the east and south: it possesses considerable fertility, but the crops are apt to be choked by a rank growth of weeds, as is the case in Jwalapur. The extreme south-east corner is of a very swampy character and gives rise to a small stream known as the Hadwaha, which is a most inefficient

drainage channel and has done much harm to the land in its vicinity.

Of the whole area, excluding the reserved forests as before, 53,061 acres or 66·94 per cent. were cultivated on an average during the five years ending in 1906-07. In 1866 the recorded area under tillage was 35,648 acres, and at the last assessment it was 48,372; but on either occasion the jungle grants were omitted, so that the comparison is to that extent faulty. There is a large amount of barren land, 15,518 acres in all; but this includes 10,229 acres under water or consisting of torrent beds, and 3,659 acres permanently occupied by buildings, railways, roads and the like, so that the actually sterile area is of comparatively limited extent. On the other hand much of the so-called culturable area, which comprises 10,684 acres or 13·48 per cent. of the pargana, is little more valuable, though from this must be deducted 3,066 acres of current fallow and 347 acres of groves, the latter being unusually scarce in this part of the district.

The standard of cultivation varies in the different tracts, improving markedly towards the south. Irrigation is almost unknown, being impracticable in the north and unnecessary in the lowlands. On the upland bank wells cannot be constructed, and the canal supplies but a small area, amounting to 256 out of an average of 397 acres irrigated: the rest is watered from unprotected wells, or else in a very small degree from tanks and watercourses. The *rabi* is now the principal harvest, occupying on an average 35,891 acres as compared with 31,285 sown in the *kharif*. The position has been changed of late years, since formerly the *kharif* predominated, the alteration being due to the spread of double-cropping, which now extends on an average to 27·19 per cent. of the net area under tillage. Of the *rabi* crops the chief is wheat, occupying 54·21 per cent. of the area sown, while an additional 15·32 per cent. is under wheat in combination with barley or gram. The latter constitutes 20·32 and barley 3·5 per cent., the balance consisting mainly in *masur* and oats. In the *kharif* the lead is taken by *bajra* with 23·51 per cent., followed by rice, chiefly of the late variety, with 22·72, *juar* with 16·86, cotton with 11·46, maize with 10·98 and sugarcane with 5·04 per cent. The last has remained stationary, and so has rice;

but cotton and maize show a distinct increase during the past fifteen years.

The husbandry is generally of a high standard, as Jhojhas and Sainis largely preponderate among the tenants. Next in order come Rajputs, Chauhans, Rors, Chamars, Gujars and Garas. There is a fair amount of proprietary cultivation, for in 1906-07 out of 56,319 acres included in holdings 24·42 per cent. was *sir* or *khudkasht*, while occupancy tenants held 16·64, tenants-at-will 57·7 and ex-proprietors ·78 per cent., the small remainder being rent-free. The occupancy area is 9,368 acres, as compared with 10,361 in 1866 and 11,868 twenty years later. A fair proportion of the land is still held on grain rents, aggregating 4,863 acres, though this is very much less than the 9,328 acres recorded at settlement. The cash rates at that time were Rs. 3-0-4 per acre for occupancy and Rs. 4-2-4 for other tenants; but the subsequent rise has been considerable, and in 1906-07 the corresponding figures were Rs. 4-0-3 and Rs. 5-11-8 respectively.

The fiscal history of the pargana is illustrated by the results of successive settlements as shown in the appendix, where also are given the present demand and its incidence.* The total is liable to vary from time to time, as there are 43 alluvial *mahals* along the Solani and elsewhere, last assessed in 1907 at Rs. 6,329. The pargana contains 125 villages, now subdivided into 347 *mahals*, of which 51 are owned by single proprietors, 118 are joint *zamindari*, 44 are perfect and 40 are imperfect *pattidari*, while 94 are held in *bhaiyachara* tenure. In spite of very heavy losses Rajputs are still the largest proprietors and at settlement held 26·5 per cent. of the area, while next came Mahajans with 20·4, Goshains with 8·6, Jhojhas with 5·2, Sainis with 4·2, Sheikhs with 3·8 and Chauhans and Rors with 3·5 per cent. apiece, while 6·4 per cent. was Government property, The chief estate is that of the Rajputs of Sakrauda, who once held 49 villages, though of late they have fallen on evil days. Six villages belong to the Rajputs of Jaurasi, 15 shares to the Goshains of Kankhal, one village and two shares to the Rani of Landhaura, and a number of villages are owned by Mahajans of Saharanpur and elsewhere.

* Appendix, tables IX and X.

The pargana was a separate subdivision in early days, and existed as such in the time of Akbar. Afterwards its area was reduced under the Rohillas by the formation of Kheri, which in 1842 was assigned to Muzaffarabad. At the same time considerable additions were made from Deoband and other parganas. Further alterations took place in 1855, when 69 villages were given to the new pargana of Bhagwanpur, 28 to Haraura, 24 to Manglaur and 17 to Jwalapur, involving a loss of 83,662 acres. On the other hand two villages were received from Jwalapur and 91 from Jaurasi, aggregating 67,598 acres. The latter was an old pargana of Akbar's day, but had been reduced in the time of Zabita Khan by the formation of Sakrauda, the estate of Rao Qutb-ud-din, though in 1842 this was broken up and for the most part restored to Jaurasi, the villages of which were then 153 in number. The name was derived from a village on the high bank of the Solani, some five miles south-east of Roorkee, where is a fine mosque built by Aurangzeb in 1018 H. On the abolition of Jaurasi in 1855 Manglaur received 26, Bhagwanpur 22, Jwalapur 13, Haraura one and Roorkee all the remaining villages.

The population of the pargana rose from 51,365 in 1865 to 54,854 in 1872, to 66,236 in 1881 and to 68,763 ten years later. Since 1891 it has undergone a slight decline, the total at the last census being 66,748, of whom 30,652 were females, and including 38,609 Hindus, 26,138 Musalmans and 2,001 others. Apart from Roorkee itself, there are no places of any importance in the pargana, though the large villages of Imlikhera and Salempur in the north contain over 2,000 inhabitants. Save in the northern half, which is traversed by the submontane road and no other, means of communication are very fair, though the *khadir* tract in the south-eastern corner is somewhat inaccessible at all seasons. Through Roorkee runs the main line of the Oudh and Rohilkhand Railway and also the metalled road from Muzaffarnagar to Mussooree. Unmetalled roads lead from Roorkee to Jabarhera on the south-west, to Landhaura and Dausni on the sout-heast, and along the canal to Dhanaura, there meeting the road from Gagalheri to Hardwar. A fourth connects Roorkee with this road at Bahadurabad, and this is joined by an inferior trac k across the lowlands of Landhaura.

ROORKEE *Tahsil.*

This large subdivision includes the eastern portion of the district, bounded on the north by the crest of the Siwalik range, which separates it from Dehra Dun; on the east by the Ganges beyond which lies the Najibabad tahsil of Bijnor; on the south by Muzaffarnagar, and on the west by the Deoband and Saharanpur tahsils. It has a total area of 352,155 acres or 550·24 square miles, though this figure excludes the reserved forests and is liable to vary with the changes in the course of the Ganges. The tahsil comprises the parganas of Roorkee, Manglaur, Jwalapur and Bhagwanpur, each of which has been separately described in detail. In its broad physical characteristics the tract presents a great diversity of scenery. In the north is the hilly range of the Siwaliks, the whole of which is reserved forest, while the latter extends for a considerable distance into the broken ground of the submontane belt in the Bhagwanpur and Roorkee parganas. This belt is scored by innumerable ravines which unite to form the Solani river and the torrents, known as the Ratmau, Pathri and Rani Raus, that carry down the surface drainage through the lowlands. Most of the area belongs to the lowlying tract, which extends inland from the Ganges to the high bank which marks the edge of the central upland *bangar*, the latter being confined to the south of Bhagwanpur, the south-east corner of Roorkee and the western half of Manglaur. This portion generally resembles the rest of the district, and is drained by the Sila and other affluents of the Kali Nadi. The soil is usually a fertile loam, with a sandy ridge on the high bank and clay in the depressions. It is irrigated in the south by the Deoband branch of the Ganges canal, the main line, which traverses the centre of the tahsil from the headworks at Hardwar to its entry into Muzaffarnagar, only supplying a small area in Manglaur and a few villages in the north of Jwalapur.

The population of the tahsil has undergone a marked increase during the past fifty years. The total rose from 225,372 in 1853 to 232,498 in 1865, to 242,696 in 1872 and to 274,571 in 1881, while ten years later it was no less than 290,498. A slight decline then set in, owing principally to deterioration in the *khadir* tract, and in 1901 the number of inhabitants was 286,903, of whom

132,565 were females. Of the whole number 189,075 were Hindus, 95,103 Musalmans, 1,326 Christians, 719 Aryas, 409 Jains and 271 Sikhs. Among the Hindus Chamars far outnumber any other caste, having 60,017 representatives, while next come Gujars with 12,029, Rajputs with 10,996, Brahmans with 10,260, Kahars with 10,214 and Sainis with 9,821, the last being much more numerous here than in any other parts of the district. Other castes occurring in strength are Banias, Kahars, Jats, Barhais, Bhangis and Koris. More than half the Rajputs are Chauhans, who in reality form a separate caste and numbered 6,449 persons. Apart from them, the principal clans are Pundirs, Bargujars, Panwars, Jaiswars, Bachhils and Jadons. The great majority of the Musalmans belong to the lower castes, Julahas taking the lead with 15,872 members, and after them come Telis with 12,682, Jhojhas with 11,463, and Garas with 10,684 representatives. Then follow Sheikhs, converted Rajputs, almost wholly of the Pundir clan, Pathans, Faqirs, Nais and Qassabs.

The tahsil possesses a large urban population, residing in the combined municipality of Hardwar, Jwalapur and Kankhal, and in the towns of Roorkee, Manglaur, Libarheri and Landhaura. Consequently it is but natural to find the agricultural community occupying a less important position than elsewhere, though it is almost impossible not to doubt the accuracy of the census returns, which show less than 38 per cent. of the people directly dependent on agriculture, while general labour accounts for more than 18 per cent. A large number of persons betake themselves to agriculture as a subsidiary means of support, and at the same time the cultivated area bears a much lower proportion to the total than in any other parts of the district, owing to the large amount of waste land in the *khadir* tract and the extensive stretches of forest in the centre and north. The other principal occupations are personal and domestic service, cotton weaving, pasture and the supply of food and drink. The commercial population is remarkably large, and the tahsil possesses a good deal of trade.

Commerce has developed to a considerable extent since the introduction of railways, which carry far more traffic than ever was borne on the roads and the Ganges canal. The main line of the Oudh and Rohilkhand system traverses the south of

the tahsil, crossing the Ganges by the Balawali bridge and passing through the stations of Raisi, Laksar, Landhaura, Roorkee and Chodiala. From Laksar a branch goes northwards to Dehra, with stations at Pathri, Jwalapur and Hardwar. Road communication, too, is very fair, except perhaps in the *khadir* tract, which is somewhat inaccessible during the rains. The main road from Meerut to Mussooree passes through Manglaur and Roorkee, thence turning north-west through Bhagwanpur to Fatehpur, where it joins the road from Saharanpur to the Mohand pass over the Siwaliks. There are also numerous unmetalled roads. From Hardwar one leads along the foot of the hills to Mohand and Khara; another follows the canal to Dhanauri and thence goes to Bhagwanpur and Gagalheri, with a branch from Bhagwanpur to Chodiala station; and a third goes southwards through the *khadir* to Sultanpur, there turning west to Laksar and Manglaur. From the latter roads run to Deoband and to Saharanpur by way of Lakhnaur. From Roorkee other roads go to Jabarhera on the south-west, to Landhaura and Dausni on the south-east, to Dhanauri along the canal and to Bahadurabad to join that from Dhanauri to Hardwar. There are ferries over the Ganges at various points and over the Banganga during the rains, for which reference may be made to the appendix. There, too, will be found lists of the schools, post-offices, markets and fairs.

The tahsil constitutes a subdivision of the district and is in the charge of a joint magistrate residing at Roorkee, assisted by a treasury officer and a tahsildar. The subdivisional officer also exercises the powers of a judge of the small cause court, while original civil jurisdiction for ordinary cases is entrusted to the munsif of Deoband. For police purposes the area was till recently divided between the circles of the Roorkee, Jwalapur, Sultanpur, Dausni, Bhagwanpur and Manglaur police stations, though portions of pargana Bhagwanpur were included in the Fatehpur and Mohand circles. Under the new scheme the Fatehpur *thana* has been abolished and its circle amalgamated with that of Bhagwanpur; while an outpost has been established at Ganeshpur and a new circle, known as Mayapur, with head-quarters at Hardwar, has been formed out of Jwalapur. It is

further proposed to unite the Sultanpur and Dausni *thanas* and to build a new station at Laksar.

SAHARANPUR, *Pargana and Tahsil* SAHARANPUR.

The city of Saharanpur stands in 29° 58′ N. and 77° 33′ E., at a distance of seventy miles north from Meerut and 102 miles from Dehli. It is approached by four lines of railway, the station, which lies to the south of the city, being the terminus of the Oudh and Rohilkhand system which here unites with the main line of North-Western Railway from Ghaziabad and Meerut to Umballa. Recently a light railway has been constructed from Saharanpur to Dehli, passing down the east of the Doab, and the terminal station is immediately to the south of that serving the broad-gauge systems. The main roads leading from Saharanpur include that to Chakrata on the north, that to Mohand and Dehra on the north-east, that to Deoband and Muzaffarnagar on the south-east, that to Nakur, Gangoh and Karnal on the south-west and that to Sarsawa and Umballa, running parallel to the railway, on the north-west. Besides these, unmetalled roads lead to Rampur and to Sultanpur, while a branch from the Deoband road takes off at Lakhnaur and goes to Jabarhera and Manglaur. Until the opening of the railway to Dehra there was a large through passenger traffic between Mussooree and the plains, and the place possessed two hotels in addition to the dak bungalow, all of which were filled in the spring and autumn with travellers coming to or returning from the hills. Since 1900 all this has been changed: the hotels have been closed, and the extensive service of tongas and stage carriages along the Mohand road has been abolished.

The foundation of Saharanpur is traditionally assigned to a saint named Shah Haran Chishti, whose tomb still attracts a considerable number of Musalman pilgrims. He flourished during the reign of Muhammad *bin* Tughlaq, and shortly afterwards the place rose to some importance as one of the Musalman garrisons located in the north to protect the Doab from the Mughal incursions. Its history has already been narrated elsewhere. The town was of large size in the days of Akbar, but it never became of great note till its selection as a capital by the

Rohilla Nawabs. On the British occupation of the upper Doab it was made the headquarters of a district, and from that time forward it grew rapidly as a trade centre on the route from Meerut to the Punjab.

The population was 34,294 at the first census in 1847, but had fallen to 31,968 in 1853, though it subsequently rose to 44,119 in 1865. A decline again set in, as in 1872 the total was 43,844, though since that date the growth of the city has been very rapid, the number of inhabitants rising to 59,194 in 1881 and to 63,194 ten years later, while at the last census in 1901 the place contained 66,254 souls, of whom 30,562 were females. Classified by religions, there were 37,614 Musalmans, 25,855 Hindus, 1,532 Jains, 911 Christians, including 534 Europeans and Eurasians, and 342 others, principally Aryas and Sikhs. The occupations of the inhabitants, according to the broad divisions given in the census report, exhibit no peculiar features. The industrial population comprises 28·65 per cent. of the whole, and of this one-third comes under the head of the supply of food and drink and one-fifth under textile fabrics, while work in metals, leather and wood accounts for about one-fourth. For the rest, general labour makes up 16·85, agriculture 15·36, personal service 15·06, commerce and transport 8·97 and the professions 7·17 per cent., the balance being included in administration or independent means of support. The industrial element is rapidly on the increase, and during the last few years a number of cotton ginning and pressing factories, flour mills and other concerns have come into existence, giving the city a much more industrial character than it formerly possessed.

The city lies to the north of the railway and the road from Deoband to Umballa, and to the west of the Dhamola, which is joined at the point where it is crossed by the main road by the Pandhoi, a small stream that drains the eastern portion of the city, and the main drain called the Craigie *nala*, which passes along the southern and western outskirts. On the northern borders a similar drain falls into the Pandhoi from the west. Near the Dhamola bridge the main road is joined by that from Rampur and the civil station on the south, continuing northwards after crossing the Pandhoi to Chakrata. East of this

road, between it and the Dhamola, lie the botanical gardens already described in chapter II. Adjoining these on the south-west, and close to the Chakrata road, is the old Rohilla fort standing in Nawabganj. It was built, it is said, by Raja Indargir Goshain and was bestowed by M. Perron on a Pathan nobleman connected with the Jhajhar family. When the Jhajhar *jagir* was confiscated small pensions were given to Shaista Khan and other loyal members of the family, but the former became hopelessly involved in debt on account of a journey to London, undertaken for the purpose of appealing against the decision of Government. He returned to Saharanpur and for the rest of his life resided in the fort which his grandfather had once occupied as commandant under the Marathas. His pension of Rs. 565 per mensem was continued to his son Aqil Khan, who was an honorary magistrate and died in 1901, leaving a minor son, Adil Khan, under the guardianship of Khan Sahib Muhammad Naim Khan of Kailaspur. The pension is now divided between Adil Khan, his mother and a stepmother, while other members receive smaller sums, bringing the whole monthly payment up to Rs. 1,000. Adil Khan's mother is a grand-daughter of Sardar Wali Muhammad Khan, uncle to the present Amir of Afghanistan.

Between the Chakrata road and the Pandhoi lie a few scattered *muhallas*, such as Khalapar, Nawabganj, Jagyan and Charjan, of little importance. Where the Nawabganj road crosses the stream are the buildings and school of the Presbyterian Mission, already mentioned in chapter IV. The city proper lies to the west of the Pandhoi and consists of a large number of densely populated *muhallas* traversed by numerous thoroughfares. About three-fourths of the houses are built of brick, but there are few buildings of any architectural or artistic merit. The main street runs northwards, closely following the line of the Pandhoi, from the junction with the Chakrata road, and along it are the dispensary, the high school, the Nakhasa police outpost, the Sabzimandi bazar and, further north, the city police station and the bonded warehouse. In the extreme north the road bends westwards and leads to Chilkana, a small branch continuing northwards to the temple of Bhuteswar Mahadeo.

Opposite the Sabzimandi stands the Jami Masjid, a fine structure recently erected by the Musalmans of the town. It is built on the plan of the great mosque at Dehli, and its lofty minarets are a conspicuous feature in the landscape for many miles around. The old Jami Masjid stands further to the west, and was built in 1530 during the reign of Humayun. Parallel to this main road or Ganj on the west runs the Nakhasa road, starting from the police outpost of that name and rejoining the former in the north, close to the Arabic school. It passes through the *muhallas* of Hiraganj, Mirganj, Pansarian, Cheontala and Burtela Yadgar on the east, and those of Mochian, Faruqi, Kaithan, Halwaian, Patwan, Mufti, Chobfaroshan and Nayabas on the west. In the rest of the city there is little of interest. In the north the principal *muhallas* are those known as Burya Darwaza, Raiwala, Chah Chhabile and Nilgiran Masjid, the last named after a mosque built in 1644. In the centre are Shormian, which contains the meat market; Shah Bahloli, where is a police outpost; Bhangi-tola, Mandi Sheopuri and Sukhi Darwaza. To the south of these are Gadhi, Sarai Ghariban, Banjaran, Qazi, Dholikhal; Chamaran and many others. Along a street leading off the Umballa road are the town hall and the Maidan Hadaf police outpost, from which a road leads southwards to the slaughter-house.

The civil station lies to the east of the railway station and extends on either side of the line. It is traversed by the Dhamola, to the west of which, between the city and the railway, are a few houses and shops, the dak bungalow and the post-office. South of the railway are the district courts and offices, the judge's court and many houses which form part of the large and growing railway settlement. To the east of the Dhamola and north of the railway are the bungalows of the district officials and others, St. Thomas' Church, built in 1854, the European cemetery and the jail. The last stands on the south side of the Dehra road and is located within the walls of the old fort. Beyond it, bounded on the north by the Dehra road and on the east by the Nagdeo stream, is an extensive stretch of ground occupied by the remount depôt, with its numerous ranges of stables, schools and quarters, to which reference has been made in chapter I.

The area of the depôt lands amounts to 2,413 acres, and a large portion of this is utilised as a grass farm.

The manufactures of the city need no further description, as a full account of the wood-carving, leather work and cloth weaving, which are the principal industries, has been given already in chapter II. The cloth made at Saharanpur is often of a superior quality, some of the fabrics being well suited for European use and commanding a considerable sale. Blankets also are woven in large quantities, but are not so well known as those of Deoband.

The educational institutions are shown in the appendix, and mention has been made in chapter IV of the history and development of the more important schools, such as the district high school and those maintained by the Methodist Mission. The municipality gives grants-in-aid to a number of schools for both boys and girls, while besides these the city contains many indigenous schools, mainly for instruction in Persian and Arabic, the place having long been celebrated on this account.

It would appear that some form of municipal administration has existed since the first occupation of Saharanpur by the British, the original body appointed to manage its affairs being known as the local agency, in imitation of the arrrangement adopted at Benares and elsewhere. A house-tax was levied for police and conservancy purposes, and this received the sanction of law under Act XX of 1856, which was applied to most of the present municipalities soon after its enactment. Under Act XXVI of 1850 the town was made a municipality in 1867, but the original constitution of the governing body has since been repeatedly changed.* At present there is a board of 17 members, of whom twelve are elected by the rate-payers. The income is derived mainly from an octroi-tax on imports, while other items include the revenue from lands, houses, shops, markets and slaughter-houses, the proceeds of pounds, licenses for hackney carriages, the sale of manure and a house-tax in force only in the civil station. The details of receipts and expenditure under the principal heads will be found in the appendix, where figures are given for each year since 1890-91.† A fresh drainage

* Notification no, 4136 of 21st December 1867. | † Appendix, table XVI.

scheme is projected, and will be carried out as soon as funds permit. The site of the city is low and moist, so that fever is very prevalent and Saharanpur has always borne a somewhat unenviable reputation for malaria. Much has been done, however, to improve matters in this respect, though the high water level and the exclusive use of wells for drinking purposes tend to militate against any general amelioration of the sanitary conditions. Several years ago an extensive excavation on the west, known as the Raiwala Jor, was filled up and is now cultivated, the drainage which used to fall into it being taken right through the city by a large masonry drain. The Pandhoi *nala* in the north-east, which joins the Dhamola near the civil station, was originally a mere sluggish swamp in a very dirty condition, overgrown with jungle and choked with mud. In 1870 a scheme was carried out, comprising the effectual surface drainage of the city, the reclamation to purity of the Pandhoi and the straightening and deepening of the Dhamola as far as its junction with the Hindan, a distance of eight miles. The undertaking was effected under the superintendence of Mr. G. H. Howe, and resulted in a decided improvement in the general health of the place. In 1901 the main city drain, known as the Craigie *nala*, was reconstructed in masonry and connected with the Dhamola near the bridge over the latter between the city and civil station. This measure proved most successful, and now the surface drainage is carried off in a rapidly flowing stream into the Dhamola, though in the rains the flood water of the latter is apt to hold up the city drainage. The drains in part of the city are flushed with water from tanks which have been constructed near the public wells, and this process is to be extended throughout the area. Another very beneficial step has been the prohibition of *kharif* cultivation in lands close to the site. But, as already mentioned, the death-rate is still high, and fever, ague and rheumatism are still prevalent, though to a less extent than was formerly the case. The general opinion, with which, however, the Irrigation department does not wholly agree, is that the canals have had much to do with the epidemics of fever which have visited the place in many years; but there can be no doubt that the water-level has been raised to an appreciable extent and

that the natural flow of the surface water has in places been impeded by the canal.

Saharanpur was the principal station of the great Trigonometrical survey of the Himalayas, and here all the most valuable observations were taken. According to the records of the survey the surface of the stone slab on the west side of the south corner of the church is 902·72 feet above the level of the sea.

SAHARANPUR *Pargana, Tahsil* SAHARANPUR.

The pargana which is named after the capital of the district forms the south-west portion of the Saharanpur tahsil, being bounded on the north by Muzaffarabad and on the east by Haraura; to the west lie Sultanpur and Sarsawa, while on the south the boundary marches with pargana Rampur of the Deoband tahsil. The total area is 80,681 acres or 126·03 square miles, the extreme length from north to south being 18 miles and the breadth from east to west about eight miles.

The tract lies wholly in the central uplands of the district, and possesses a level or slightly undulating surface, with a gentle slope from north to south. Down the western half flows the eastern Jumna canal, following the crest of the watershed between the valley of the Jumna on the west and that of the Hindan on the east. In the latter direction the drainage is carried into the Dhamola, a small stream which traverses the centre of the pargana, passing close to the town of Saharanpur, where it receives on its right bank a rivulet known as the Pandhoi. It has a narrow but well defined bed, and does little damage to the land on its banks, while at places the channel has been deepened and improved for drainage purposes. On reaching the southern boundary the Dhamola turns south-eastwards to join the Hindan at the village of Firozpur Nandi. Further east, keeping close to the Haraura boundary, flows the Nagdeo, another inconsiderable stream that rises in the north of Muzaffarabad and after taking a very irregular course, unites with the Hindan at Ghagreki. From that point the Hindan separates this pargana from Haraura; it carries a large volume of water during the rains and has an extensive area of lowlying grounds on its banks,

though the *khadir* on the western side is of little importance. Almost the whole pargana has the benefit of canal irrigation, derived from numerous distributaries, of which the most important are the Nagla, Babail, Megchappar, Chidbana and Nalhera on the left bank, and the Randaul, Pilkhani and Tharauli on the right. These, together with the many minor channels, have interfered to a large extent with the natural drainage, especially in the immediate neighbourhood of Saharanpur and on the southern borders. Close to the city there is a large area of lowlying land which was at one time liable to prolonged submersion, and was undoubtedly the cause of the malarial fever for which the place was notorious. This has been partially remedied by the Dhamola improvement and the construction of numerous drains. The same thing occurred in a similar depression to the south, between the canal and the Dhamola, where the Kirsani took its rise. That stream has been converted into a regular escape channel, its bed being deepened and realigned with satisfactory results.

Generally speaking, the pargana is one of the best in the district, and has attained a high stage of development. The soil exhibits the same characteristics as the rest of the upland plain, varying in texture according to the elevation. In the north and on the higher levels it is principally a light loam, while on the south it is a stiff clay, well adapted for rice cultivation. In the central portion there is found a combination of these two soils, the proportion of sand varying with the elevation of the surface. Along the river banks there are narrow sandy strips which lie beyond the reach of canal irrigation, and which, possessing an unstable subsoil, suffer from a defective water supply. This is particularly the case in the neighbourhood of the Nagdeo, where the land is somewhat uneven and means of irrigation are very deficient. Actually the only precarious villages are those along this stream, and these either suffer from lack of irrigation or else are liable to damage in time of flood, portions of six villages having been brought on to the alluvial register.

In 1866 pargana Saharanpur had 58,691 acres under cultivation, while by the last settlement the total had risen to 62,225,

A further increase has since taken place, for during the five years ending in 1906-07 the average area under the plough was 64,605 acres or 80·08 per cent. of the whole. The extent of the increase is only apparent when it is remembered that no less than 20,017 acres or 30·98 per cent. of the net cultivation are double-cropped. There is little room for further extension, for 8,593 acres are barren, this comprising 3,821 acres under water, 4,524 acres permanently occupied by sites, buildings, railways, roads and the like, and a very small amount of unculturable waste. The so-called culturable area is 7,483 acres or 9·27 per cent. of the whole, and not only is this a very low proportion but it includes 1,998 acres of groves, which are exceptionally numerous, and 2,417 acres of current fallow, the rest being of little value and all too little for the purposes of grazing. Means of irrigation are abundant, and on an average 25,908 acres or 40·1 per cent. of the cultivated area obtains water. Of this the canal supplies 95·73, wells 3·08 and tanks or streams 1·19 per cent. Generally speaking, the canal has altogether superseded wells, and by raising the water-level has rendered their construction difficult and their life short: but this is of little moment, since practically every village is within reach of canal water.

The standard of cultivation is high, and this is evinced by the crops grown. The area occupied by the two harvests is approximately equal, but of late years the *rabi* has been the larger: the average is 41,940 acres as compared with 41,824 sown in the *kharif*, though in 1905 and the following year the excess on the part of the former was very much more marked. The chief spring crop is wheat, which by itself occupies 55·19 per cent. of the *rabi* area, apart from 16·78 per cent. under wheat mixed with gram or barley. Gram, with a small admixture of peas, covers 13·09 and barley 3·88 per cent., while oats are grown to a considerable extent and *masur* makes up the bulk of the remainder. In the *kharif* the lead is taken by rice with 41·79 per cent., slightly more than half being of the transplanted variety; and then follow *juar*, either sown alone or in combination with *arhar*, constituting 18·88, maize with 10·18, sugarcane with 9·45, *bajra* with 5·1 and cotton with 3·06 per cent., the balance consisting mainly of the smaller millets.

The tillage is to a large extent in the hands of the proprietary communities. The chief cultivating castes are Gujars in the south, Garas in the centre and Rajputs in the north, while Sainis, Chamars, Tagas and others are found in most villages. In 1906-07 the total area included in holdings was 67,412 acres, and of this 31·4 per cent. consisted of *sir* and *khudkasht*, 26·64 was held by occupancy tenants, 38·02 by tenants-at-will and 3·06 by ex-proprietors, the small balance being rent-free. The occupancy area, 17,959 acres, is relatively large, but owing to the policy of the landholders it has decreased considerably, the total being 19,068 in 1866 and 21,451 acres at the last settlement. Cash rents prevail in most places, but 3,170 acres still pay rent in kind, though in 1886 the area was as much as 9,121 acres. The average cash rental is the highest in the district, owing no doubt to the unusual value of land in the suburbs : being Rs. 5-2-0 per acre for occupancy and Rs. 7-8-6 for ordinary tenants. The rise during late years has been considerable, as at the settlement the rates were Rs. 4-6-0 and Rs. 5-7-7 respectively.

The fiscal history of the pargana, as illustrated by the results of succeeding settlements, is shown in the appendix, where also are given the present demand and its incidence * There are six unimportant alluvial *mahals*, which were last assessed in 1907. Altogether the pargana contains 153 villages, at present divided into 463 *mahals*, of which 25 are owned by single proprietors, 61 are joint *zamindari*, twelve are perfect and 224 imperfect *pattidari*, the remaining 141 being held in *bhaiyachara* tenure. There are no large and compact estates in the pargana, but many villages have been acquired by Mahajans of the city and six belong to the Powell family. Till recently the Rajputs of Sheikhpura had an extensive property, but they have now sunk into comparative insignificance and the money-lending classes have made constant headway at the cost of the coparcenary communities. At the last settlement Mahajans held 21·9 per cent. of the total area, followed by Rajputs with 13·2, Gujars and Sheikhs with 11·4 per cent. apiece, Garas with 6·7 and Saiyids with 5·4, while smaller shares

* Appendix, tables IX and X.

were owned by Europeans, Pathans, Tagas, Kalwars, Ahirs, and Kayasths.

The pargana as a fiscal unit dates at least from the time of Akbar, but has undergone considerable changes. At the general reconstitution of boundaries in 1842 it received portions of the Patehar *taluqa*, separated from Sultanpur Behat in the days of Najib-ud-daula by a Pathan named Anwar Khan; it comprised 31 villages, lying between the canal, the Maskara and the Jumna, and most of it was assigned to Sultanpur. Other additions comprised a large part of Malhaipur, a tract lying to the east of Saharanpur and containing a number of scattered villages; and most of the small pargana of Jahangirabad, which was first formed in the days of Shahjahan and was now divided between Saharanpur, Faizabad and Sultanpur. Further extensive alterations took place in 1855, when 23 villages were transferred to Haraura, 14 to Sarsawa, six to Muzaffarabad, three to Rampur and two to Sultanpur; while the total number was raised to 180 villages by the addition of eight from Faizabad, six from Rampur, four from Muzaffarabad, two from Nakur and one from Sultanpur.

The population in 1865 numbered 110,340 souls, and though this dropped to 109,767 in 1872, the subsequent increase has been very marked, the total rising to 131,629 in 1881 and to 137,028 ten years later. Since that time the rate has been well maintained, for in 1901 the pargana contained 151,210 inhabitants, of whom 69,436 were females: the total included 79,814 Hindus, 68,195 Musalmans, this being a higher proportion than in any other pargana, and 3,201 of other religions. The only place of importance is the city of Saharanpur, though there are several large villages such as Sheikhpura, Randaul, Ghanakhandi and Nalhera Gujar, each of which has a population of 2,000 and upwards.

Means of communication are excellent, since the district capital is a great railway junction and many roads radiate from it in every direction. Through the pargana runs the North-Western Railway from south-east to north-west, joined at Saharanpur by the main line of the Oudh and Rohilkhand system and by the narrow-gauge railway from Shahdara. The metalled roads within the limits of the pargana are those leading to Mussooree, Chakrata, Umballa, Karnal and Deoband, though the last three are

unmetalled beyond the boundary. Besides these, unmetalled roads run to Chilkana and Sultanpur on the north-west and to Rampur on the south, while a good pathway is maintained along the course of the canal.

SAHARANPUR *Tahsil.*

The headquarters tahsil comprises the central and north-western portions of the district, and occupies a large stretch of country of a somewhat irregular shape, with a total area of 310,519 acres, or 485·19 square miles, exclusive of the reserved forests. It is bounded on the north by the crest of the Siwalik range, beyond which lies the district of Dehra Dun, on the east by pargana Bhagwanpur of the Roorkee tahsil, on the south by the Nagal and Rampur parganas of Deoband, and on the west partly by the Nakur tahsil and partly by the Jumna, which separates it from the Umballa district in the Punjab. Here the provincial boundary is not determined, as is the case lower down, by the deep-stream rule, but was artificially demarcated at the time of the last settlement in 1888.

The subdivision includes the four parganas of Saharanpur, Haraura, Muzaffarabad and Faizabad, each of which has been separately described, with a detailed account of its physical characteristics, agriculture and revenue. Roughly speaking, the tract presents very diverse characteristics in different parts. The hilly range to the north consists wholly of reserved forest, and to the south of this is the *ghar* or submontane belt, a gently sloping stretch of country crossed by numerous torrent beds, most of which take a south-westerly course into the Jumna. Those to the east flow either southwards to form the Hindan, or else south-eastwards into the Solani and the Ganges *khadir*. Below this again comes the central upland tract, of which the level surface is broken only by the shallow river valleys.

The population of the tahsil has increased more markedly during the past fifty years than that of any other portion of the district. In 1853 it numbered only 210,666 persons and since that time the increase has been both constant and rapid, the total rising to 243,679 in 1865, to 253,606 in 1872, to 292,293 in 1881 and to 312,498 ten years later. At the last census in 1901 the

number of inhabitants was 334,681, including 156,229 females. Of the total 197,554 were Hindus, 133,288 Musalmans, 1,932 Jains, 1,039 Christians, 688 Aryas, 168 Sikhs, 11 Parsis and one a Buddhist. Among the Hindus Chamars as usual far outnumber any other caste, having a total of 68,249 persons. Next to them come Rajputs, 19,494, though this includes 6,547 Chauhans, the principal clans being Pundirs, Jadons, Bargujars, Panwars, Tomars and Bais. Other castes of importance are Malis, 11,578, Brahmans, 10,788, Kahars, 10,689, Gujars, 9,482 and Banias, 8,516, while Bhangis, Barhais, Koris, Ahirs and Tagas occur in considerable strength. Musalmans are proportionately more numerous here than in any other subdivision. The castes occurring in numbers exceeding 10,000 are Telis, 21,377, Garas, 18,260, Julahas, 16,309, Sheikhs, 11,813 and Rajputs, 10,491, the last being principally Chauhans and Pundirs. Gujars, Pathans, Nais, Qassabs, Faqirs, Lohars and Saiyids are also found in considerable strength.

Turning to the statistics of occupations, we find that though the tahsil is mostly agricultural, the proportion of persons directly dependent on cultivation is unusually low, amounting to but little more than 26 per cent. of the whole, This is probably below the mark, as over 13 per cent. come under the head of general labour, while many persons resort to agriculture as a subsidiary means of support. The other occupations of importance are personal and domestic service, the suppy of food and drink, cotton weaving, and work in leather and wood, for both of which Saharanpur possesses a great reputation. The large area under jungle and waste afford ample grazing grounds and cattle breeding is an important industry. A noteworthy feature is the large number of beggars, more than 7,000 persons coming under this head, exclusive of those belonging to the regular religious orders of mendicants.

Saharanpur is the only town of any size; but the tahsil also possesses a number of large villages, of which mention has been made in the pargana articles. The district headquarters is an important road and railway centre, so that generally communications are superior to those of other tahsils, except perhaps in the northern tracts. Through Saharanpur passes the main line of the

North-Western Railway, and this is joined by the Oudh and Rohilkhand system and also by the light railway from Shahdara, on which there is a station at Manani on the southern boundary of the tahsil. Metalled roads run northwards to the Timli pass and Chakrata and north-eastwards to Mohand and Dehra, the latter being joined at Fatehpur by that from Roorkee and Meerut. In addition to these the roads to Nakur, Deoband and Umballa are metalled as far as the tahsil boundary in each case. Unmetalled roads lead from Saharanpur to Sultanpur on the north-west and to Rampur on the south, from Gagalheri to Nagal and to Bhagwanpur and from Fatehpur to Muzaffarabad, while along the foot of the hills runs the submontane road from Khara to Hardwar. There are no ferries over the Jumna in this tahsil, the river being generally fordable except during the rains, when communication is extremely difficult in the lowlying parts of pargana Faizabad. The list of schools, post-offices, markets and fairs will be found in the appendix.

The tahsil is administered as a subdivision in the charge of a full-powered officer on the district staff. There is a tahsildar stationed at Saharanpur, and within municipal limits petty criminal cases are tried by a bench of honorary magistrates. The area is included in the charge of the Saharanpur munsif, who is subordinate to the district judge. Under the former arrangements there were police stations at Saharanpur, Muzaffarabad, Mirzapur, Behat and Fatehpur, but their circles did not coincide with the limits of the tahsils. A few villages in the south of pargana Saharanpur came under the jurisdiction of Rampur, a portion of pargana Faizabad lay within the Chilkana circle, parts of Muzaffarabad belonged to Mohand and a large portion of Haraura is included in Nagal. Recently Mirzapur was, with Behat, the police station remaining: it is proposed at the latter place, and has been amalgamated with to abolish that of Muzaffarabad, combining the circle with Mohand, the new station being situated at Biharigarh.

SAKRAUDA, *Pargana* BHAGWANPUR, *Tahsil* ROORKEE.

A large and important village standing in 30° 0′ N. and 77° 51′ E., at a distance of nine miles north-north-west from

Roorkee. The site is built at the foot of the low range of hills and broken ground which forms a detached block of the reserved forest, and in the valley of the Sipia, a tributary of the Solani. Above the village to the north is the old fort of the Pundirs, who still are the owners of Sakrauda; and though their possessions have sadly diminished, they have succeeded in preserving their parent village intact. The Pundirs are Musalmans and are descended from one Rao Qutb-ud-din, who in the days of Zabita Khan made Sakrauda into a separate *tappa* comprising 49 villages detached from pargana Jaurasi. The family retained possession of all the adjacent hill country till the settlement of 1838, when the waste was separated from the cultivated lands and the *tappa* was broken up. At the last census the village had a population of 3,037, of whom 2,014 were Musalmans. Sakrauda contains a post-office, an upper primary school and an indigenous school for boys. The area of the village, which is divided into a number of *pattidari mahals*, is 5,061 acres, though of this only some 2,385 acres are under cultivation: the revenue demand is Rs. 2,500.

SALEMPUR, *Pargana and Tahsil* ROORKEE.

This large village, officially known as Salempur Mahdud, stands in 29° 56′ N. and 78° 2′ E., in the north-east corner of the pargana, four miles west from Jwalapur, eleven miles from Roorkee and three miles from the foot of the hills. The ground in its vicinity is much broken by torrent beds, and to the west are the extensive protective works of the Pathri Rau, which crosses the canal at Bichpari. The place contained at the last census a population of 2,735 persons, of whom 1,652 were Musalmans. There is an upper primary school here and an aided school for girls. The Musalmans are converted Pundirs and are now in a greatly impoverished condition, though they still own most of the land, the rest having passed into the hands of Mahajans and others. The total area is 5,022 acres, of which some 3,660 are cultivated, and the revenue demand is Rs. 4,100.

SARSAWA, *Pargana* SARSAWA, *Tahsil* NAKUR.

The ancient town of Sarsawa is situated in the north of the pargana to which it gives its name, in 30° 1′ N. and 77°

24′ E., on the main road from Saharanpur to Rajghat and Umballa, at a distance of nine miles west from the district headquarters and eleven miles north-east from Nakur. A short distance to the north of the town runs the North-Western Railway, and a metalled branch road leads from the town to the Sarsawa station, about a mile and a half to the north-east; from the station the road continues in the same direction to Chilkana. The place is built on high ground, close to the edge of the cliff that marks the western limit of the uplands, and immediately below this bank flows the small stream known as the Budhi. The lands of Sarsawa are very extensive, covering 3,139 acres, and lie principally in the uplands, deriving their irrigation chiefly from wells, though tanks are utilised to a limited extent: they are held in *bhaiyachara* tenure, and are assessed to a revenue of Rs. 4,000.

Sarsawa figures frequently in the early history of the district, and there can be no doubt that it was an important place before the coming of the Musalmans. The identification of the town with the Sharwa of the historians is somewhat uncertain, as already mentioned in chapter V, but it is probably true that Sarsawa is the old Siraspatan, celebrated as the birthplace of Bachal Rani, the mother of Goga Chauhan, who is worshipped as Goga Pir all over the north of India. Tradition states that the name of the town is derived from Siraspal, the last Hindu Raja, who was overthrown by Mahmud of Ghazni, and who gave his daughter to the conqueror when mortally wounded, with a last request that the fort might be called Sarsawa after his own name. The same story narrates that the seige had been maintained for three months, and that in the fighting a Musalman chieftain named Pir Mardana Shahid, but now commonly called Kilkili Sahib, was slain and his body buried on the top of the north-east bastion. In the days of Babar the fort was still an important stronghold, being built of brick and possessing a fosse 120 feet broad. Long before the cession of the district to the British, the walls had been dismantled and the mound was overgrown with jungle. There are still four round towers at the corners, and one of them has a height of fifty feet above the level of the interior.

The fort itself stands on high ground to the west of the main site, and by the edge of a large tank.

The town is a poor place, with a general aspect of decay, while for some time the population has been on the decline. It rose from 3,433 in 1872 to 3,978 in 1881, but then fell to 3,827 in 1891, and at the last census the number of inhabitants was only 3,439, of whom 1,807 were Hindus, 1,296 Musalmans and 336 of other religions, chiefly Jains. There is a small amount of through trade with the Punjab, and markets are held weekly in the bazar. Sarsawa possesses a police station, a post-office, a cattle-pound and an upper primary school. The site is surrounded with groves, which cover an area of about 175 acres, and to the east of the town is a military encamping-ground.

Since 1860 Sarsawa has been administered under the provisions of Act XX of 1856, and at a later date the place was brought under the village Sanitation Act, 1892. In 1907 the town contained 1,082 houses, of which 803 were assessed to taxation, the income from the house-tax being Rs. 1,048, which gave an average incidence of Re. 1-4-10 per assessed house and Re. 0-4-10 per head of population. The total income for the year, which may be taken as typical, was Rs. 1,193, including the opening balance and the almost insignificant miscellaneous receipts. The expenditure was Rs. 1,157, the principal items being Rs. 523 for the maintenance of seven *chaukidars*, Rs. 324 for the upkeep of a conservancy staff and Rs. 125 for minor local improvements.

SARSAWA *Pargana, Tahsil* NAKUR.

Sarsawa is one of the four parganas of this tahsil, and comprises a compact block of country lying between Nakur on the south and Sultanpur in the north; to the east is pargana Saharanpur, and to the west the Umballa and Karnal districts of the Punjab. The Umballa boundary does not follow the deep stream of the Jumna till it reaches the Mandhaur ferry; above that point it is conventional, having been demarcated in 1888, and for the most part runs through the sandy wastes on the western bank of the river, the addition thus accruing to the district being

practically of no value and of small extent. The total area of the pargana is 61,450 acres or 96·01 square miles.

The high bank that separates the *khadir* from the *bangar* or uplands takes an irregular but uninterrupted course from the town of Sarsawa to Nakur: close beneath it is a narrow belt of low swampy rice land, deepening occasionally into *jhils*, and elsewhere forming the bed of the small stream known as the Budhi. The latter at first has a well defined channel, but towards the south the surface of the *khadir* is scored by numerous water-courses, many of which carry water only in the rains. The soil of the lowlands is generally a light and fairly productive alluvium: but in places it degenerates into mere sand, and in the immediate neighbourhood of the Jumna there are wide stretches of waste bearing nothing but tamarisk jungle. Irrigation in the *khadir*, though seldom required, is very difficult to obtain owing to the sandy nature of the subsoil, which renders temporary wells shortlived. The edge of the uplands, immediately above the high bank, is of the same inferior description as in the other parganas, the soil being sandy and dry. It improves towards the east into a good loam varied by clay in the depressions, which are numerous and in some cases of large extent. The chief are the Dhulapra and Kumharhera *jhils* near the eastern border, and these have no natural outlets, but occupy wide basins in the interior of the uplands. They have caused much damage in the past, and matters have been but imperfectly remedied by the excavation of a cut connecting the two and leading westwards into the Budhi. The natural drainage too is in some degree obstructed by the canal and its distributaries, which traverse the eastern portion of the pargana. Still the upland tract is generally of a fertile description, easily irrigated and capable of producing crops of a high quality. In the best part, however, the land is held principally by Gujars, who are decidedly less industrious and prosperous than their kinsmen in the corresponding portion of Sultanpur.

The pargana is more highly developed than the rest of the tahsil, and the present average area of cultivation, calculated from the returns of the five years ending in 1906-07, is 46,496 acres or 75·66 per cent. of the whole. The recent improvement

has been considerable, for in 1866 the land under the plough was 43,257 acres, rising to 44,437 at the last settlement. There is still a certain amount of waste, though for the most part of a very inferior description : 10,100 acres or 16·44 per cent. are classed as culturable, though this includes 1,871 acres of current fallow and 810 acres of groves. The remainder is shown exclusively as old fallow, though the description is very misleading, for much of this land differs but little from that described as barren. The latter aggregates 6,854 acres, including 2,978 acres under water and 1,773 acres occupied by sites, railways, roads and the like. At all events it is impossible to suppose that the entire pargana, with the exception of 102 acres, has at any time been cultivated, and the classification must be considered as purely arbitrary.

As in the rest of the tahsil, the *rabi* is the more important harvest, averaging 30,776 acres as against 25,495 sown in the *kharif*, while 10,020 acres or 21·5 per cent. of the net cultivation bear two crops in the year. Of the *rabi* area wheat by itself covers 62·71 and, in combination with gram or barley, 10·05 per cent., followed by gram with 14·97 and barley with 16·98 per cent., the other crops being oats, *masur* and mustard. In the *kharif* the lead is taken by *juar*, which alone or mixed with *arhar* makes up 25·57 of the whole, and this is closely followed by maize with 23·81 per cent., the proportion throughout the tahsil being very high. Rice, mainly of the transplanted variety, occupies 16·01, *bajra* 15·22, cotton 7·65 and sugarcane 5·28 per cent., no other products being of any importance. Means of irrigation are generally abundant, except on the sandy edge of the uplands ; for in the *khadir* tracts little water is required, and the needs of the superior crops can be satisfied from the raised unprotected wells, the construction of which entails little trouble or expense. The eastern portion is within reach of the canal, which supplies 27·66 per cent. of the total irrigated area, the latter averaging 9,722 acres or 20·9 per cent. of the net cultivation : 70·25 per cent. is watered from wells, and 2·09 per cent. from tanks and other sources.

The cultivation generally is not of a high order, being for the most part in the hands of Gujars and Rajputs, though a

considerable area is tilled by Sainis, Jats, Garas and Brahmans. Much of the land is in the occupation of proprietors, and in 1906-07, out of 49,679 acres included in holdings, 34·02 per cent. was recorded as *sir* or *khudkasht*, while 15·59 per cent. was held by occupancy tenants, 43·79 by tenants-at-will and 5·63 by ex-proprietors, the remainder being rent-free. The occupancy area is 7,746 acres and has decreased from 9,859 at settlement, while even in 1866 it was as much as 7,997 acres. Rents are paid mainly in cash, but 4,888 acres are still grain-rented, though most of this is of a more or less precarious nature and the process of conversion from kind to cash has gone on steadily since the settlement, when 9,150 acres paid grain rents. The present average cash rental for occupancy tenants is Rs. 4-3-0 and for tenants-at-will Rs. 5-5-2 per acre, whereas the corresponding figures twenty years ago were Rs. 3-3-8 and Rs. 4-5-2 respectively.

The revenue demand of successive settlements, as well as the present amount and its incidence, will be found in the appendix.* The total is apt to vary on account of the nine alluvial *mahals*, which were last assessed in 1904-05 at Rs. 7,071. The pargana contains in all 127 villages, now divided into 201 *mahals*, of which 43 are held by single proprietors, 80 are single *zamindari* and 78 are *bhaiyachara*, the *pattidari* form of tenure being here unknown. The principal landowners are the Mahajans of Saharanpur and Jagadhri, but there are no large estates. Chief among the proprietary castes are Mahajans, who at the last settlement owned 27 per cent. of the area and had gained 5,500 acres in twenty years, mainly at the expense of the Gujars and Rajputs, whose losses are illustrated by the large amount of ex-proprietary cultivation. Next come Gujars with 21·6, Rajputs with 17·8, Jats with 8·1 and Pathans with 4·2 per cent., the rest being owned by Sheikhs, Saiyids, Garas, Brahmans, Mughals and others.

Sarsawa gave its name to a pargana at least as early as the days of Akbar, but it no longer preserves its original shape. Certain changes were effected in 1842, though these were unimportant as compared with the alterations that took place in

* Appendix, tables IX and X.

1855, when 44 villages were transferred to Sultanpur and two to Nakur, while in exchange Sarsawa received 48 from Nakur, 14 from Saharanpur and one each from Sultanpur and Muzaffarabad, the result being a gain of 7,524 acres. It is owing to these changes that both Sarsawa and Nakur now stand on the extreme northern boundaries of the parganas to which they give their name, whereas formerly they occupied a more or less central position.

The change in area brought about a considerable increase in population, the total rising from 32,213 in 1853 to 36,894 in 1865. Since that time a further increase has been observed, the number of inhabitants being 38,306 in 1872 and 40,293 in 1881. Then it remained stationary, or rather declined, the total in 1891 being 39,392. At the last census the pargana had a population of 41,698 persons, of whom 19,175 were females. Classified according to religions there were 31,036 Hindus, 10,220 Musalmans and 442 others. The small town of Sarsawa is the only place of any size within the area, and no other village possesses 2,000 inhabitants, Jhabiran and Tabar alone containing over 1,500 souls. Means of communication are deficient, especially in the east and west. Along the northern boundary run the railway and road from Saharanpur to Umballa, the latter passing through Sarsawa, from which a metalled branch leads to the railway station. An unmetalled road runs through the centre from Sarsawa to Nakur, while the south-eastern corner is traversed by the road from Saharanpur to Gangoh, metalled within the pargana boundaries. The villages in the extreme south also have the advantage of the unmetalled branch connecting this road with Nakur.

SHEIKHPURA, *Pargana and Tahsil* SAHARANPUR.

A very large agricultural village in the south-east of the pargana, standing in 29° 55′ N. and 77° 34′ E., on the west side of the railway and the metalled road leading to Nagal and Deoband, at a distance of four miles from Saharanpur. It is built on fairly high ground between the Dhamola on the west and the Nagdeo on the east, and the site is almost surrounded with groves, which cover 85 acres out of a total area of 3,422 acres. Irrigation is

provided by the Nagla distributary of the Jumna canal, and the cultivation is mainly in the hands of the tenants-at-will, the proprietors being Sheikhs and Banias who hold in *bhaiyachara* tenure and pay a revenue of Rs. 4,600. The population of the place was 2,767 in 1872 and by the last census had risen to 4,135, of whom 2,451 were Musalmans. There is a lower primary school here, but nothing else of any interest or importance.

SULTANPUR, *Pargana* SULTANPUR, *Tahsil* NAKUR.

The place which gives its name to the Sultanpur pargana is a small town standing in 30° 5′ N. and 77° 29′ E., on the high bank that marks the western edge of the uplands, at a distance of about half a mile to the north of Chilkana and nine and a half miles from the district headquarters. It is said to have been founded by Bahlol Lodi and is consequently of some antiquity, though it possesses nothing of antiquarian interest beyond an old mosque and the ruins of a fort, the latter lying to the south-east of the main site. The population numbered 3,022 in 1872 and 3,088 in 1881, but afterwards declined to 2,760 in 1891, while at the last census the town contained 2,743 inhabitants, of whom 1,602 were Hindus, 881 Musalmans and 260 of other religions. The principal residents are Jains, who are people of considerable wealth and carry on a large trade in sugar and salt with the Punjab. Markets are held weekly in the bazar. There is a post-office here, as well as an aided school and a model girls' school maintained by the district board. The town lands are 991 acres in extent, and lie partly in the lowlands through which flows the Maskara: they are held in *pattidari* tenure at a revenue of Rs. 1,675. Some 65 acres are under groves, mainly to the south-east of the site.

Sultanpur was brought under the operations of Act XX of 1856 in 1860, but ten years later it was united with Chilkana to form a single town for the purposes of the Act. In 1907 the combined area contained 2,525 houses, of which 1,583 paid house-tax, the proceeds of which amounted to Rs. 2,028, giving an average incidence of Re. 1-4-5 per assessed house and Re. 0-5-1 per head of population. The miscellaneous receipts average about Rs. 150, and these with the opening balance

brought the total up to Rs. 2,612. The expenditure for the same year, which may be taken as fairly typical, was Rs. 1,157, the chief items being Rs. 842 for the maintenance of twelve *chaukidars*, Rs. 660 for the upkeep of a conservancy staff and Rs. 330 for minor local improvements. Other enactments applied to the combined towns are the Village Sanitation Act, 1892, and section 34 of the Police Act.

SULTANPUR *Pargana, Tahsil* NAKUR.

This is the northernmost of the four parganas that constitute the Nakur tahsil, being bounded on the south by Sarsawa, on the east by Saharanpur, on the north by Faizabad and on the west by the Umballa district. The Jumna flows along the western borders, but does not form the actual boundary as is the case lower down: the provincial frontier was demarcated in 1888, and in most places keeps to the west of the existing main channel. The total area of the pargana is 57,203 acres or 89·38 square miles.

The greater portion of the tract lies in the *khadir*, a low alluvial plain traversed by numerous streams and water courses, but in most cases sufficiently high to escape extensive inundation. In the extreme north is a small area of marshy land, all that remains of the great Sultanpur swamp, through which several drains have been cut leading into the Maskara. To the west of this the level rises to a sandy stretch which continues as far as the Budhi Jumna, here generally known as the Sapolia, which enters the Jumna near Sadullahpur and the Rajghat ferry, cutting off the north-western angle: it has a well defined bed, and does little damage to the land in its neighbourhood. The Maskara enters the pargana near the north-east corner and flows close to the high bank as far as Sultanpur: thence it wanders westwards across the *khadir* to join the Sapolia, carrying off most of the drainage from the north. Near the high bank the soil is a rich clay, producing excellent rice; but generally the *khadir* possesses a light friable soil of fair fertility, seldom requiring irrigation and in ordinary years yielding a good return for comparatively little labour. After leaving the high bank, the place of the Maskara is taken by the Budhi, a small

stream that has several distinct sources. One is the Dadar *jhil* to the east of Chauri; a second branch is the Phandi, which rises in a depression on the outer edge of the uplands at Patni near Chilkana; and a third is the Sikri swamp, which forms a large rice-growing area in the south-east corner of the pargana, and discharges its surplus waters into the *khadir* by means of a small channel leading into the Phandi. The course of the Budhi where it follows the high bank is distinctly swampy, and much of the land in its vicinity is utilised merely for the reeds and thatching grass it produces, these having a considerable commercial value. The uplands in this pargana form a comparatively small proportion of the whole. The soil along the high bank is poor and sandy, while further inland a ridge of red sand runs southwards as far as the Sikri swamp. The area east of the ridge has a good clay soil and is watered by the Randaul distributary of the Jumna canal, which has practically displaced other sources of irrigation: the crops grown in this part are of a very high quality, the sugarcane and rice being almost unequalled.

The cultivated area of the pargana in 1866 amounted to 40,329 acres and little change occurred during the currency of the settlement, the total at the last revision being only 40,857 acres. Since the latter date, however, there has been some improvement, the average for the five years ending in 1906-07 being 43,307 acres or 75·71 per cent. of the whole. A more remarkable advance has taken place in the matter of the area bearing two crops in the year, which now averages no less than 32·38 per cent. of the net cultivation. The barren area is relatively large, amounting to 6,385 acres or 11·16 per cent. of the entire pargana; but this includes 4,231 acres under water and 1,984 acres occupied by sites, railways, roads and the like, leaving a very small proportion of actually sterile land. On the other hand there can be no doubt that much of the so-called culturable area is very little superior to this, for there are wide expanses of marsh and sandy waste in the *khadir* tracts which would never repay tillage, even if they could be brought under the plough at all. Altogether 7,512 acres are classed as culturable, though this figure includes 687 acres of groves and 2,136 acres of current fallow. Like the rest of the tahsil, Sultanpur has adequate means of irrigation, but in the

lowlands very little is required, except for the superior crops, and these are supplied by unprotected wells which can be constructed without difficulty. Such is not the case, however, in the villages on the edge of the uplands, where the water-level is comparatively deep and the subsoil is of an unfavourable nature. Of an average total of 5,060 acres, equivalent to 11·68 per cent. of the area under the plough, 4,103 acres are supplied from the canal, which only serves the eastern half of the tract, 770 from wells and 188 from tanks and other sources.

Though this was not always the case, the *rabi* is now the most important harvest, averaging 30,229 acres as against 26,889 sown in the *kharif*. Wheat is the great spring staple, occupying 58·54 per cent. of the rabi, apart from 9·07 per cent. under wheat in combination with barley or gram. At the same time the proportion is not so high as in the rest of the tahsil, and barley is much more widely grown, averaging 9·93 per cent., while gram with 12·74 per cent., oats and *masur* make up the bulk of the remainder. In the *kharif* maize now takes the lead, averaging no less than 32·6 per cent. of this harvest, a figure which marks the resemblance of the pargana to Faizabad rather than to the rest of the tahsil. Next come rice, mainly of the late or transplanted variety, with 23·86 ; *juar*, either alone or in combination with *arhar*, with 16·74 ; *bajra* with 7·08 ; cotton with 6·85, and sugarcane with 5·78 per cent. There is also a fair amount of the autumn pulses and the inferior millets, such as *kodon* and *sanwan*.

The bulk of the cultivation is divided between Gujars and Garas, while small areas are held by Sainis, Tagas, Rajputs, Brahmans, Chamars and others. The total area included in holdings in 1906-07 was 45,446 acres ; and of this 30·63 per cent. was in the hands of proprietors, 2·63 of ex-proprietary tenants, 15·15 of occupancy, and 50·31 per cent. of ordinary tenants, the small remainder being rent-free. Cash rents have largely supplanted payments in grain, which at settlement were in force over an area of 13,907 acres as compared with 9,928 at the present time. The occupancy area is now 6,886 acres, and shows a marked decrease, since in 1866 the amount was 7,997 and twenty years later 9,534 acres. Cash rents average Rs. 4-10-4 per acre on occupancy holdings and Rs. 6-15-4 for tenants-at-will. The rates are

remarkably high, and have risen from Rs. 4-2-11 and Rs. 5-2-1 respectively since the last settlement.

The revenue demand is liable to vary from time to time owing to fluctuations in the 28 alluvial *mahals*, last assessed at Rs. 11,925 in 1905-06. The results of successive assessments, together with the present demand and its incidence, are shown in the appendix.* The pargana contains 128 villages, now divided into 275 *mahals*, and of the latter 19 are held by single proprietors, 41 are joint *zamindari*, 38 are *bhaiyachara*, five are perfect and 172 are imperfect *pattidari*. A large area has passed into the hands of the money-lending classes, but at the last settlement Gujars still maintained their leading position with 36 per cent. of the land, followed closely by Mahajans with 32·6 and then by Saiyids with 6·3, Tagas with 5·8, Garas with 4·8 and Pathans with 4·4 per cent., the rest being owned mainly by Rajputs, Sheikhs and Kalwars. The Mahajans of Saharanpur and Jagadhri and the Rani of Landhaura have considerable properties in the pargana.

During the past fifty years the population of the pargana has not increased so rapidly as in many parts of the district. The total in 1865 was 44,693 souls, and this rose to 45,378 in 1872 and 49,577 in 1881. The following decade witnessed a decline which was common to all the western parganas, the figure dropping in 1891 to 47,548. Since that time there has been some recovery, and at the last census the pargana contained 48,685 inhabitants of whom 22,683 were females, the total comprising 25,414 Hindus, 22,842 Musalmans, an unusually high proportion, and 429 others. The principal places in the pargana are Sultanpur and Chilkana, which form a single town for the purposes of Act XX of 1856 and have been separately described. Bartha Kayasth and Budhakhera contain over 2,000 inhabitants but are of little importance, being mere collections of scattered hamlets. The pargana suffers from defective means of communication, at any rate in the northern parts, which are altogether devoid of roads. From Chilkana unmetalled roads lead to Saharanpur and to Sarsawa, the latter connecting with the railway, which traverses the southern borders, and with the

* Appendix, tables IX and X.

road from Saharanpur to Umballa, which crosses the Ganges by a bridge of boats at Rajghat. In the *khadir* communications are always difficult, and during the rains this tract is practically cut off from the rest of the pargana, as the Maskara and Budhi Jumna then carry a large volume of water.

The area was originally included in the pargana known as Behat Kanjawar, by which the name was changed to Sultanpur Behat in the days of Shahjahan. Najib-ud-daula divided the tract into two separate parganas, which remained distinct thereafter. In 1842 the area was increased by the addition of villages from the old parganas of Patehar and Jahangirabad, though this was discounted by the transfer of an equal amount to Faizabad and Muzaffarabad. Further changes took place in 1855, when three villages were given to Faizabad and one each to Sarsawa and Saharanpur; while at the same time 44 villages were received from Sarsawa, two from Saharanpur and one from Behat, raising the total number to 120, with a net new gain in area of 18,680 acres.

SULTANPUR KUNARI, *Pargana* JWALAPUR, *Tahsil* ROORKEE.

A large village situated in the *khadir* of the Ganges in 29° 45′ N. and 78° 7′ E., at a distance of about eighteen miles south-east from Roorkee, with which it is connected by a road leading through Laksar and Landhaura. A rough track goes northwards through the lowlands to Hardwar, but during the rains the place is almost cut off from the outer world. The village had in 1901 a population of 2,019 souls, including 1,355 Musalmans and a large number of Telis. It deserves mention as possessing a police station, a cattle-pound and an upper primary school; though the first is likely to be removed in the near future to Laksar, the circle being amalgamated with that of Dausni. The market is of some local importance, as it attracts all the produce of the *khadir* villages and there are several well-to-do families of Banias. The latter share the proprietary right with a cultivating community of Julahas. The area of the village is 598 acres and the revenue Rs. 899.

THAPAL ISMAILPUR, *Pargana* MUZAFFARABAD, *Tahsil* SAHARANPUR.

This very large but scattered village lies on the eastern borders of the pargana on either side of the metalled road from Saharanpur to Dehra, at a distance of 20 miles north-east from the former and five miles beyond Fatehpur. The village lands extend over no less than 5,012 acres, and occupy the angle between the Khandur and Rajwa Raus. There are several distinct sites, of which the chief are Thapal, on the right bank of the Rajwa; Ismailpur, near the Khandur and nearly two miles north-west of Thapal; Biharigarh, on the main road, where is the bazar in which markets are held weekly; Tanda Man Singh higher up the road to the north, where the police post was originally located and where the station is to be built; and the smaller hamlets of Tanda Tota, Tanda Sundar and Sitalpur. The total population in 1901 numbered 2,947 persons, of whom 430 were Musalmans. The village lands are poor and are cultivated chiefly by tenants-at-will; they are for the most part owned by Lala Manohar Lal Bhargava, Rai Bahadur, resides here and pays a revenue of Rs. 5,150. This gentleman has constructed a small canal for the use of his estate, obtaining the supply from a spring in the Siwaliks. He has also undertaken a scheme of afforestation, with the assistance of the Forest department, and the forest is managed on a scientific plan under his personal control. There is a lower primary school in Ismailpur, and an aided school at Biharigarh, where also the post-office is situated.

TITRON, *Pargana* GANGOH, *Tahsil* NAKUR.

This small town lies in the south-east corner of the pargana adjoining the Muzaffarnagar boundary, in 29° 40′ N. and 77° 20′ E., at a distance of nine miles from Gangoh and 26 miles from the district headquarters. Through it runs an unmetalled road from Gangoh to Jalalabad and Muzaffarnagar, crossing the Katha by a bridge some two miles to the north-west. The country on all sides lies low and is irrigated by the Hangoli distributary of the Jumna canal, which is also crossed by a bridge, close to which stands an inspection bungalow. The

introduction of canal irrigation gave a great impetus to agriculture in the neighbourhood, which became celebrated for its sugarcane, though of late years the cultivation of this staple has decreased and the place has declined in consequence. Formerly it was reputed to be very unhealthy, though matters have mended somewhat as the result of drainage operations undertaken by the Canal department. The actual site is raised and the streets slope down to the outskirts, so that the surface drainage is generally good; many of the houses are built of brick, and some of the streets are paved and drained, though in the outskirts the numerous tanks and excavations tend to render the place unhealthy. The village lands are 2,965 acres in extent and are held on *bhaiyachara* tenure, chiefly by Gujars, at a revenue of Rs. 4,745: some 425 acres are revenue-free and about 140 acres are under groves, these lying chiefly to the south and east.

The population of Titron numbered 3,825 persons in 1872, but this dropped to 3,551 in 1881 and to 2,721 ten years later. At the last census in 1901 a marked improvement was observed, the total being 3,298, of whom 2,011 were Hindus, 1,104 Musalmans and 183 of other religions. The place possesses a post-office, a middle vernacular school and a weekly market, though the trade is purely local. Since 1868 the town has been administered under Act XX of 1856, while the provisions of the Village Sanitation Act, 1892, are also in force here. In 1907 the number of houses within the *chaukidari* area was 949, and of these 659 were assessed to taxation: the income from the house-tax was Rs. 907, giving an incidence of Re. 1-6-0 per assessed house and Re. 0-4-4 per head of population. The total income for the same year, including the opening balance and the small miscellaneous receipts, was Rs. 1,075 and the expenditure Rs. 953, the chief items being Rs. 424 for the maintenance of the police force of six men, Rs. 267 for the conservancy staff and Rs. 104 for minor improvements.

Gazetteer of Saharanpur.

APPENDIX.

GAZETTEER

OF

SAHARANPUR.

APPENDIX.

CONTENTS.

TABLE I.—*Population by Tahsils*, 1901.

Tahsil.	Total.			Hindus.			Musalmans.			Others.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
Saharanpur ...	334,681	178,452	156,229	197,554	105,984	91,570	133,288	70,280	63,008	3,839	2,188	1,651
Deoband	220,152	119,020	101,132	164,191	89,472	74,719	53,010	27,942	25,068	2,951	1,606	1,345
Roorkee	286,903	154,338	132,565	189,075	101,792	87,283	95,103	50,703	44,400	2,725	1,843	882
Nakur	203,494	109,033	94,461	131,799	71,411	60,388	69,732	36,578	33,154	1,963	1,044	919
Total ...	1,045,230	560,843	484,387	682,619	368,659	313,960	351,133	185,503	165,630	11,478	6,681	4,797

TABLE II.—*Population by Thanas*, 1901.

Thana.	Total.			Hindus.			Musalmans.			Others.		
	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.
1	2	3	4	5	6	7	8	9	10	11	12	13
Saharanpur	152,750	82,537	70,213	80,501	44,129	36,372	69,083	36,593	32,490	3,166	1,815	1,351
Behat	62,370	32,561	29,809	36,987	19,384	17,603	25,043	12,995	12,048	340	182	158
Mirzapur	21,019	11,162	9,857	11,129	5,993	5,136	9,848	5,144	4,704	42	25	17
Muzaffarabad	37,737	19,683	18,054	24,730	12,913	11,817	12,775	6,643	6,132	232	127	105
Mohand	12,650	7,262	5,388	10,489	5,948	4,541	2,128	1,288	840	33	26	7
Fatehpur	42,841	22,546	20,295	28,370	14,894	13,476	14,422	7,625	6,797	49	27	22
Deoband	85,343	45,810	39,533	56,840	30,882	25,958	27,811	14,531	13,280	692	397	295
Badgaon	36,597	20,509	16,088	31,692	17,830	13,862	4,298	2,351	1,947	607	328	279
Rampur	58,218	31,252	26,966	44,975	24,257	20,718	12,353	6,541	5,812	890	454	436
Nanauta	26,877	14,300	12,577	20,894	11,114	9,780	5,237	2,784	2,453	746	402	344
Nagal	48,311	26,072	22,239	37,088	20,068	17,020	11,064	5,903	5,161	159	101	58
Roorkee	66,295	35,867	30,428	37,107	19,841	17,266	27,369	14,747	12,622	1,819	1,279	540
Bhagwanpur	37,130	19,682	17,448	22,992	12,257	10,735	14,098	7,400	6,698	40	25	15
Jwalapur	66,470	36,189	30,281	47,371	25,967	21,404	18,566	9,870	8,696	533	352	181
Sultanpur	17,790	9,551	8,239	13,761	7,414	6,347	4,013	2,130	1,883	16	7	9
Manglaur	70,888	37,761	33,127	48,035	25,573	22,462	22,620	12,056	10,564	233	132	101
Dausni	20,772	11,093	9,679	14,671	7,813	6,858	6,030	3,238	2,792	71	42	29
Nakur	54,550	29,515	25,035	39,663	21,813	17,850	14,175	7,332	6,843	712	370	342
Chilkana	37,455	19,875	17,580	18,113	9,506	8,607	18,926	10,155	8,771	416	214	202
Sarsawa	29,401	15,813	13,588	19,191	10,682	8,509	9,815	4,924	4,891	395	207	188
Gangoh	47,375	25,203	22,172	28,979	15,582	13,397	18,121	9,462	8,659	275	159	116
Bassi	12,391	6,600	5,791	9,041	4,799	4,242	3,338	1,791	1,547	12	10	2
Total ...	1,045,230	560,843	484,387	682,619	368,659	313,960	351,133	185,503	165,630	11,478	6,681	4,797

TABLE III.—*Vital Statistics.*

Year.	Births.				Deaths.			
	Total.	Males.	Fe-males.	Rate per 1,000.	Total.	Males.	Fe-males.	Rate per 1,000.
1	2	3	4	5	6	7	8	9
1891	39,078	20,429	18,649	39·03	33,937	18,058	15,879	33·89
1892	40,053	20,858	19,195	40·00	38,528	20,688	17,840	38·48
1893	44,856	23,510	21,346	44·80	29,648	15,712	13,936	29·61
1894	44,897	23,780	21,117	44·84	44,715	23,630	21,085	44·66
1895	38,199	20,150	18,049	38·14	40,839	22,126	18,713	40·79
1896	37,285	19,476	17,809	37·24	38,438	20,877	17,561	38·39
1897	36,369	19,233	17,136	36·32	35,994	19,508	16,486	35·95
1898	43,693	22,696	20,997	43·64	34,632	18,333	16,299	34·59
1899	52,699	27,527	25,172	52·63	33,718	17,816	15,902	33·67
1900	43,510	22,886	20,624	43·45	32,537	16,846	15,691	32·49*
1901	42,661	22,488	20,173	40·81	36,840	19,029	17,811	35·24
1902	45,950	24,002	21,948	43·96	41,777	21,507	20,270	39·97
1903	45,177	23,801	21,376	43·22	45,057	23,109	21,948	43·11
1904	44,567	23,383	21,184	42·64	39,933	19,827	20,106	38·20
1905	43,447	22,756	20,691	41·56	49,163	24,608	24,555	47·03
1906	44,980	23,726	21,254	43·03	53,815	26,392	27,423	51·49
1907	35,648	19,075	16,573	34·10	79,425	39,197	40,228	75·99
1908	36,1[illegible]8	19,080	17,118	34·63	49,847	25,481	24,366	4·769
1909								
1910								
1911								
1912								
1913								
1914								
1915								
1916								
1917								
1918								
1919								
1920								
1921								
1922								

* The rates from 1891 to 1900 are calculated from the returns of the 1891 census.

TABLE IV.—*Deaths according to cause.*

Year.			Total deaths from—					
			All causes.	Plague.	Cholera.	Small-pox.	Fever.	Bowel com-plaints.
1			2	3	4	5	6	7
1891	...	...	33,937	...	182	33	31,187	788
1892	...	...	38,528	...	398	11	36,391	905
1893	...	...	29,648	...	129	6	27,584	1,100
1894	...	...	44,715	...	48	10	42,717	1,112
1895	...	...	40,839	...	357	1	39,279	578
1896	...	...	38,438	...	315	159	36,955	322
1897	...	...	35,994	25	171	400	34,039	358
1898	...	...	34,632	134	2	4	33,062	346
1899	...	...	33,718	...	129	4	31,214	623
1900	...	...	32,537	...	53	6	30,832	342
1901	...	...	36,840	...	322	8	35,160	208
1902	...	...	41,777	52	289	22	40,250	223
1903	...	...	45,057	554	563	33	42,504	265
1904	...	...	39,933	3,780	96	35	34,467	301
1905	...	...	49,163	7,827	28	2	39,904	237
1906	...	...	53,815	2,270	140	64	50,041	228
1907	...	...	79,425	25,052	88	75	52,849	229
1908	...	...	49,847	113	124	93	48,377	118
1909	...	...						
1910	...	...						
1911	...	...						
1912	...	...						
1913	...	...						
1914	...	...						
1915	...	...						
1916	...	...						
1917	...	...						
1918	...	...						
1919	...	...						

TABLE V.—*Statistics of cultivation and irrigation, 1314 Fasli.*

Pargana and tahsil.	Total area.	Waste.	Culturable.	Cultivated.						Double-cropped.
				Irrigated.				Dry.	Total.	
				Total.	Canal.	Wells.	Other sources.			
1	2	3	4	5	6	7	8	9	10	11
	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.	Acres.
Saharanpur	81,181	8,366	8,467	22,891	22,120	579	192	41,457	64,348	20,290
Faizabad	76,994	13,754	8,148	2,642	2,490	20	132	52,450	55,092	23,174
Muzaffarabad	84,261	13,562	9,080	306	280	18	8	61,313	61,619	23,126
Haraura	68,615	6,000	4,346	1,309	30	599	680	56,960	58,269	13,658
Tahsil Saharanpur ...	311,051	41,682	30,041	27,148	24,920	1,216	1,012	212,180	239,328	80,248
Deoband	86,266	6,431	6,341	19,356	17,914	1,152	290	54,138	73,494	14,953
Rampur	82,361	7,595	10,499	30,660	29,932	500	228	33,607	64,267	21,943
Nagal	77,506	5,341	5,512	6,727	3,208	3,049	470	59,926	66,653	11,200
Tahsil Deoband	246,133	19,367	22,352	56,743	51,054	4,701	988	147,671	204,414	48,096
Roorkee	79,264	15,403	9,232	317	213	72	32	54,312	54,629	17,083
Bhagwanpur	98,908	14,079	13,377	946	248	517	181	70,506	71,452	17,063
Jwalapur	95,732	17,165	23,037	3,633	3,483	113	37	51,897	55,530	17,830
Manglaur	78,242	10,431	6,833	11,642	11,597	24	21	49,336	60,978	17,730
Tahsil Roorkee	352,146	57,078	52,479	16,538	15,541	726	271	226,051	242,589	69,706
Nakur	70,758	5,474	12,743	13,039	4,332	8,609	98	39,502	52,541	12,152
Sultanpur	57,202	6,505	8,014	4,428	3,862	501	65	38,255	42,683	14,438
Sarsawa	61,454	4,726	10,506	7,449	2,131	5,282	36	38,773	46,222	10,938
Gangoh	84,168	6,591	23,655	18,704	6,521	11,813	370	35,218	53,922	12,664
Tahsil Nakur	273,582	23,296	54,918	43,620	16,846	26,205	569	151,748	195,368	50,192
District Total	1,182,912	141,423	159,790	144,049	108,361	32,848	2,840	737,650	881,699	248,242

TABLE VI.—*Area in acres under the principal crops, Tahsil Saharanpur.*

Year.	Rabi.						Kharif.						
	Total.	Wheat alone.	Barley alone.	Barley and gram.	Wheat, gram and barley.	Gram alone and with peas.	Total.	Rice.	Bajra alone and mixed.	Maize.	Sugar-cane.	Cotton alone and mixed.	Juar alone and mixed.
Fasli.													
1305	136,373	64,864	5,435	2,236	21,243	29,670	167,749	48,058	23,279	36,668	9,768	14,272	21,595
1306	142,369	71,918	5,152	2,580	21,938	28,253	159,916	44,445	21,099	34,117	11,330	11,967	23,936
1307	115,641	76,434	4,543	1,500	18,567	5,137	155,738	42,013	24,339	28,019	11,996	11,937	26,020
1308	*	*	*	*	*	*	163,330	35,909	26,580	36,482	10,330	15,659	24,558
1309	141,672	73,434	4,999	1,479	20,318	27,789	159,755	45,919	22,151	34,644	6,082	13,770	24,405
1310	141,814	73,634	4,045	1,505	16,823	31,884	169,829	43,904	21,101	38,896	8,463	15,681	27,441
1311	144,615	79,253	4,140	1,070	15,809	29,468	158,132	36,896	30,036	32,795	9,611	6,930	30,000
1312	151,640	78,303	5,006	1,180	15,245	35,743	161,157	38,259	20,205	31,560	13,028	16,146	30,723
1313	152,553	89,230	4,614	929	15,236	30,603	144,425	21,603	23,199	35,948	5,878	18,244	26,836
1314	162,641	82,308	5,094	1,198	17,084	42,402	155,738	33,530	16,428	34,090	7,156	21,897	29,779
1315													
1316													
1317													
1318													
1319													
1320													
1321													
1322													
1323													
1324													
1325													
1326													

* No returns on account of census operations

Table VI—(continued).—*Area in acres under the principal crops, Tahsil Deoband.*

Year.		Rabi.						Kharif.						
		Total.	Wheat alone.	Barley alone.	Barley and Gram.	Wheat, Gram and Barley.	Gram alone and with peas.	Total.	Rice.	Bajra alone and mixed.	Maize.	Sugar-cane.	Cotton alone and mixed.	Juar alone and mixed.
Fasli.														
1305	...	111,806	66,288	5,036	763	9,069	27,861	118,985	47,197	7,571	7,273	13,594	3,437	27,384
1306	...	117,937	74,536	5,870	1,114	11,203	21,354	118,077	39,270	9,123	6,652	15,334	3,895	31,167
1307	...	110,773	84,641	5,793	662	9,393	7,836	117,513	39,971	8,579	5,165	15,776	4,707	30,327
1308	...	*	*	*	*	*	*	119,745	36,939	10,444	6,296	14,650	5,254	32,230
1309	...	123,446	80,461	5,004	1,002	14,245	19,320	120,303	45,087	9,397	6,773	8,444	4,790	32,703
1310	...	123,711	75,627	4,146	604	11,701	28,286	124,822	41,601	9,952	6,663	13,039	5,641	34,378
1311	...	128,837	80,719	4,019	702	10,033	29,847	117,878	36,757	13,235	6,507	13,613	2,196	33,540
1312	...	131,680	81,453	5,078	1,057	10,966	28,232	121,139	35,832	10,649	6,550	14,245	5,812	36,165
1313	...	144,856	95,849	5,454	772	10,765	27,626	99,170	22,470	10,356	7,154	7,386	6,519	31,964
1314	...	127,065	77,186	4,455	717	10,826	30,695	116,801	34,499	10,928	7,640	9,916	6,838	33,959
1315	...													
1316	...													
1317	...													
1318	...													
1319	...													
1320	...													
1321	...													
1322	...													
1323	...													
1324	...													
1325	...													
1326	...													

* No returns on account of census operations.

TABLE VI—(continued).—*Area in acres under the principal crops, Tahsil Roorkee.*

Year.	Rabi.						Kharif.						
	Total.	Wheat alone.	Barley alone.	Barley and Gram.	Wheat, Gram and Barley.	Gram alone and with peas.	Total.	Rice.	Bajra alone and mixed.	Maize.	Sugar-cane.	Cotton alone and mixed.	Juar alone and mixed.
Fasli.													
1305 ...	138,690	65,366	7,410	1,653	21,234	29,007	150,076	58,034	21,341	13,584	13,903	10,092	17,566
1306 ...	135,653	75,102	6,933	1,485	19,373	21,788	143,409	50,200	20,781	12,782	16,258	9,352	19,350
1307 ...	121,291	81,235	6,081	1,230	18,178	8,147	134,328	41,995	24,337	10,103	15,099	9,840	20,096
1308 ...	*	*	*	*	*	*	147,293	38,108	27,807	17,320	14,170	13,488	20,340
1309 ...	148,905	85,778	6,336	1,163	18,192	27,183	146,151	28,497	7,597	20,267	8,699	13,453	20,285
1310 ...	146,776	83,181	5,233	735	17,587	28,551	151,315	41,807	22,821	20,882	12,635	14,675	22,637
1311 ...	154,308	86,138	5,647	828	18,188	31,355	137,429	38,098	32,853	13,048	12,321	4,862	23,522
1312 ...	157,340	85,939	5,686	1,044	18,606	34,457	146,671	44,721	21,216	14,516	14,595	14,113	25,313
1313 ...	152,666	94,640	5,221	966	16,270	28,437	124,984	20,917	28,948	16,026	10,391	14,751	20,582
1314 ...	162,800	91,230	5,930	1,113	20,083	35,116	148,606	43,840	20,760	16,519	12,776	17,287	24,452
1315 ...													
1316 ...													
1317 ...													
1318 ...													
1319 ...													
1320 ...													
1321 ...													
1322 ...													
1323 ...													
1324 ...													
1325 ...													
1326 ...													

* No returns on account of census operations.

TABLE VI—(concluded).—*Area in acres under the principal crops, Tahsil Nakur.*

Year.	Rabi.						Kharif.						
	Total.	Wheat alone.	Barley alone.	Barley and Gram.	Wheat, Gram and Barley.	Gram alone and with peas.	Total.	Rice.	Bajra alone and mixed.	Maize.	Sugar-cane.	Cotton alone and mixed.	Juar alone and mixed.
Fasli.													
1305 ...	114,956	62,294	8,546	1,530	12,417	21,860	109,385	25,008	9,154	28,179	6,099	5,655	21,443
1306 ...	124,280	76,093	7,716	1,762	13,583	19,389	108,169	22,749	9,264	29,042	5,796	6,342	22,850
1307 ...	111,139	83,307	7,035	895	11,338	2,334	113,041	22,439	8,478	28,758	6,928	7,772	25,767
1308 ...	*	*	*	*	*	*	114,529	21,098	10,898	28,782	5,494	8,954	24,208
1309 ...	127,953	81,789	8,582	1,614	14,428	13,361	107,985	27,570	8,947	23,726	4,476	7,575	24,607
1310 ...	119,719	76,389	6,175	1,117	10,746	18,607	118,715	25,922	9,923	29,028	5,256	8,107	28,234
1311 ...	130,978	80,720	7,457	938	10,035	24,243	109,879	19,004	13,364	28,161	5,270	4,717	28,034
1312 ...	131,162	81,583	7,335	1,094	11,172	20,076	114,538	24,783	10,736	24,493	5,712	8,106	29,699
1313 ...	145,825	93,549	6,799	1,034	11,262	22,621	89,397	10,921	9,550	23,926	3,033	9,191	22,790
1314 ...	137,655	84,393	7,500	1,328	12,730	22,575	106,419	21,120	9,644	22,745	3,138	10,029	27,551
1315 ...													
1316 ...													
1317 ...													
1318 ...													
1319 ...													
1320 ...													
1321 ...													
1322 ...													
1323 ...													
1324 ...													
1325 ...													
1326 ...													

* No returns on account of census operations.

TABLE VII.—*Criminal Justice.*

Year.	Number of persons convicted or bound over in respect of—												Cases under—	
	Offences against public tranquillity (Chapter VIII).	Offences affecting life.	Grievous hurt.	Rape.	Cattle-theft.	Criminal force and assault.	Theft.	Robbery and dacoity.	Receiving stolen property.	Criminal trespass.	Bad livelihood.	Keeping the peace.	Opium Act.	Excise Act.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1896 ...	68	15	11	...	53	78	322	2	74	226	73	27	4	9
1897 ...	96	29	23	...	42	27	340	44	72	276	90	25	3	9
1898 ...	55	17	24	...	32	35	231	15	29	180	58	27	4	15
1899 ...	25	16	18	1	18	29	185	11	62	166	62	35	7	28
1900 ...	44	32	26	2	38	21	274	18	88	201	56	38	1	9
1901 ...	71	13	9	...	17	23	185	3	81	160	42	25	6	26
1902 ...	32	22	38	4	38	32	163	12	62	150	99	5	4	5
1903 ...	90	23	12	2	25	36	206	34	78	118	298	54	3	34
1904 ...	56	10	50	...	22	39	130	15	46	92	179	28	3	44
1905 ...	9	12	28	...	29	22	126	17	57	77	290	45	4	9
1906 ...	36	13	16	...	27	8	121	12	75	113	202	37	5	12
1907 ...	16	48	14	...	28	4	111	8	54	6	162	42	3	17
1908 ...														
1909 ...														
1910 ...														
1911 ...														
1912 ...														
1913 ...														
1914 ...														
1915 ...														
1916 ...														
1917 ...														

TABLE VIII.—*Cognizable Crime.*

Year.	Number of cases investigated by police—			Number of persons—		
	Suo motu.	By orders of Magistrate.	Sent up for trial.	Tried.	Acquitted or discharged.	Convicted.
1	2	3	4	5	6	7
1898	1,856	16	1,083	1,538	391	1,147
1899	1,663	39	932	1,246	321	925
1900	1,956	41	930	1,363	302	1,061
1901	1,704	37	756	1,074	274	800
1902	1,639	14	695	993	238	755
1903	1,880	...	1,059	1,478	410	1,068
1904	1,423	...	762	1,082	267	800
1905	2,489	...	948	1,145	191	946
1906	1,594	...	858	1,098	210	888
1907	1,514	...	774	978	164	814
1908						
1909						
1910						
1911						
1912						
1913						
1914						
1915						
1916						
1917						
1918						
1919						

TABLE IX.—*Revenue demand at successive settlements.*

Pargana.	Year of settlement.					
	* 1835—41	1859—62	1864—67.		1888—90.	
			Permanent.	Alluvial.	Permanent.	Alluvial.
1	2	3	4	5	6	7
	Rs.	Rs.	Rs.	Rs	Rs.	Rs.
Saharanpur ...	95,070	95,561	1,20,814	1,112	1,45,646	1,044
Faizabad ...	48,454	54,143	62,139	5,416	77,410	5,341
Muzaffarabad ...	41,948	43,566	51,125	1,603	66,441	1,581
Haraura ...	82,231	84,796	77,745	5,695	94,932	6,114
Tahsil Saharanpur ...	2,67,703	2,78,066	3,11,823	13,826	3,84,429	14,080
Deoband ...	1,01,679	1,02,827	96,730	2,842	1,32,500	2,842
Rampur ...	1,02,249	1,11,647	1,19,897	350	1,42,771	350
Nagal ...	1,04,744	1,04,746	88,869	2,759	1,13,021	2,759
Tahsil Deoband ...	3,08,672	3,19,220	3,05,496	5,951	3,88,292	5,951
Roorkee ...	42,023	45,835	50,410	4,802	73,015	5,232
Bhagwanpur ...	81,456	82,063	72,653	4,367	98,079	4,351
Jwalapur ...	32,209	38,315	48,550	1,325	67,384	1,122
Manglaur ...	96,487	96,992	91,308	2,059	1,11,768	2,072
Tahsil Roorkee ...	2,52,175	2,63,205	2,62,921	12,553	3,50,246	12,777
Nakur ...	66,967	65,282	68,960	4,622	85,277	4,064
Sultanpur ...	51,206	57,021	54,471	6,623	73,042	6,430
Sarsawa ...	60,883	62,667	59,662	5,372	73,423	5,169
Gangoh ...	86,340	83,981	67,280	8,167	77,718	8,116
Tahsil Nakur ...	2,65,396	2,68,951	2,50,373	24,784	3,09,460	23,779
Total District ...	10,93,946	11,29,442	11,30,613	57,114	14,32,427	56,587

* Owing to changes in the parganas, the details of earlier settlements cannot be given.

TABLE X.—*Present demand for revenue and cesses for the year* 1314 *fasli.*

Pargana and tahsil.	Where included in *Ain-i-Akbari.*	Revenue.	Cesses.	Total.	Incidence per acre— Cultivated.	
					Cultivated.	Total.
1	2	3	4	5	6	7
		Rs.	Rs.	Rs.	Rs. a. p.	Rs. a. p.
Saharanpur ...	Saharanpur ...	1,44,166	14,965	1,59,131	2 8 2	1 15 4
Faizabad ...	Raipur Tatar ...	82,509	8,311	90,820	1 10 5	1 2 10
Muzaffarabad ...	Muzaffarabad ..	95,212	9,661	1,04,873	1 11 3	1 3 10
Haraura ...	Malhaipur, Jaurasi and Muzaffarabad.	1,04,611	10,462	1,15,073	1 13 11	1 10 9
Tahsil Saharanpur.	...	4,26,498	43,399	4,69,897	1 15 10	1 8 2
Deoband ...	Deoband ...	1,37,377	13,738	1,51,115	2 0 11	1 12 0
Rampur ...	Rampur ...	1,43,957	14,397	1,58,354	2 7 5	1 14 9
Nagal ...	Deoband ...	1,18,828	11,883	1,30,711	1 15 4	1 11 0
Tahsil Deoband,	...	4,00,162	40,018	4,40,180	2 2 5	1 12 6
Roorkee ...	Roorkee ...	81,502	8,338	89,840	1 10 4	1 2 1
Bhagwanpur ...	Jaurasi and Malhaipur.	1,13,235	11,324	1,24,559	1 11 11	1 4 2
Jwalapur ...	Bhogpur ...	76,331	7,638	83,969	1 8 2	0 14 0
Manglaur ...	Manglaur ...	1,15,663	11,566	1,27,229	2 1 4	1 10 0
Tahsil Roorkee.	...	3,86,731	38,866	4,25,597	1 12 0	1 3 4
Nakur ...	Nakur and Ambahta.	81,841	9,125	90,966	1 8 11	1 2 6
Sultanpur ...	Behat Kanjawar.	84,752	8,514	93,266	1 15 9	1 7 8
Sarsawa ...	Sarsawa ...	79,256	8,078	87,334	1 11 5	1 4 7
Gangoh ...	Gangoh and Lakhnauti.	84,730	9,019	93,749	1 9 2	1 0 1
Tahsil Nakur...		3,30,579	34,736	3,65,315	1 13 11	1 5 4
Total District...		15,43,970	1,57,019	17,00,989	1 15 0	1 7 0

TABLE XI.—*Excise.*

Year.	Receipts from foreign liquors.	Country spirit. Receipts.	Country spirit. Consumption in gallons.	Receipts from *tari* and *sendhi*.	Drugs. Total receipts.	Drugs. Consumption in maunds of— *Ganja.*	Drugs. Consumption in maunds of— *Charas.*	Opium. Total receipts.	Opium. Consumption.	Total receipts.	Total charges.	Incidence of receipts per 10,000 of population from— Liquor including *tari.*	Incidence of receipts per 10,000 of population from— Drugs.	Incidence of receipts per 10,000 of population from— Opium.	Number of shops for sale of— Country spirit.	Number of shops for sale of— Drugs.	Number of shops for sale of— Opium.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Rs	Rs.		R s	Rs.	Mds. s.	Mds. s.	Rs.	Mds. s.	Rs.	Rs.	Rs.	Rs.	Rs.			
1890-91 ...	1,811	66,836	29,170	60	11,650	Not available.		30,510	61 32	1,10,918	3,338	686	116	305	144	47	30
1891-92 ...	1,763	83,354	30,745	150	11,700	Ditto.		29,239	56 16	1,26,241	5,338	851	117	292	144	47	26
1892-93 ...	1,403	83,293	33,934	113	11,725	...	49 25	29,414	56 2	1,25,991	5,062	847	117	293	145	42	26
1893-94 ...	1,643	94,824	38,365	75	14,034	...	39 15	30,776	52 12	1,41,394	4,458	953	140	307	141	49	26
1894-95 ...	1,446	97,275	39,602	75	11,454	...	48 21	30,031	50 4	1,40,353	6,167	983	114	300	127	52	26
1895-96 ...	1,377	88,977	35,846	75	12,817	...	59 21	26,129	44 21	1,29,394	3,374	901	128	254	127	52	26
1896-97 ...	1,491	70,332	24,469	82	33,229	...	52 5	23,827	40 20	1,28,969	2,078	639	332	238	128	52	26.
1897-98 ...	1,284	87,103	30,903	108	39,213	...	37 0	15,918	41 38	1,51,163	1,961	754	392	235	116	52	26
1898-99 ...	1,420	1,21,172	45,011	75	45,689	...	58 10	25,092	46 16	1,93,511	4,871	1,008	162	250	123	52	26
1899-1900...	1,743	99,920	30,898	97	51,090	...	22 37	17,258	46 17	1,76,867	2,866	887	175	256	122	52	23
1900-01 ...	1,536	98,048	33,590	155	18,271	...	34 9	32,968	40 37	1,51,037	2,688	954	175	315	121	52	27
1901-02 ...	1,552	1,08,593	37,230	235	18,895	...	35 14	34,037	46 26	1,63,350	2,463	1,061	181	327	122	52	39
1902-03 ...	1,680	1,18,593	38,691	125	19,318	...	41 22	33,703	45 17	1,73,451	2,765	1,158	186	324	127	52	40
1903-04 ...	1,744	1,31,370	42,210	160	19,022	...	35 29	34,072	46 17½	1,86,399	2,856	1,281	183	328	123	52	40
1904-05 ...	1,753	1,43,732	47,760	118	22,349	...	27 36	34,205	44 2	2,02,195	3,512	1,400	215	329	123	52	40
1905-06 ...	1,576	1,32,859	44,611	79	26,245	...	22 12	33,937	44 36	1,94,735	2,484	1,293	252	326	122	43	40
1906-07 ...	1,372	1,38,941	41,992	74	29,730	...	32 17	34,144	40 33	2,04,508	2,758	1,350	286	328	114	43	40
1907-08 ...	1,298	1,45,124	37,930	150	31,066	...	34 18	34,202	40 15	2,11,946	4,139	1,409	299	329	111	42	40
1908-09 ...																	
1909-10 ...																	
1910-11 ...																	
1911-12 ...																	
1912-13 ...																	
1913-14 ...																	
1914-15 ...																	
1915-16 ...																	
1916-17 ...																	

TABLE XII.—*Stamps.*

Year.	Receipts from—			Total charges.
	Non-Judcial.	Court-fee, including copies.	All sources.	
1	2	3	4	5
	Rs.	Rs.	Rs.	Rs.
1890-91	38,127	1,81,597	2,20,114	3,823
1891-92	41,201	1,85,392	2,27,394	4,187
1892-93	45,148	1,86,648	2,33,103	3,906
1893-94	43,745	1,86,684	2,31,410	3,996
1894-95	48,079	1,76,612	2,25,624	3,936
1895-96	44,982	1,80,080	2,25,622	2,852
1896-97	46,849	1,65,140	2,12,670	3,109
1897-98	44,561	1,73,489	2,21,573	3,128
1898-99	43,028	1,87,821	2,33,119	4,834
1899-1900	47,284	1,78,346	2,28,300	4,420
1900-01	55,944	2,27,808	2,86,274	3,733*
1901-02	49,510	2,28,138	2,79,916	6,010
1902-03	51,255	2,05,098	2,58,342	5,462
1903-04	53,341	1,91,076	2,46,280	5,582
1904-05	56,532	2,05,884	2,64,391	5,107
1905-06	58,669	1,90,578	2,51,310	6,940
1906-07	48,070	1,77,287	2,27,166	5,839
1907-08	62,228	1,94,409	2,58,597	5,912
1908-09				
1909-10				
1910-11				
1911-12				
1912-13				
1913-14				
1914-15				
1915-16				
1916-17				
1917-18				
1918-19				

Table XIII.—*Income-tax.*

Year.	Total receipts.	Collected by companies.		Profits of companies.		Other sources, Part IV.				Total charges.	Objections under Part IV.	
		Assessees.	Tax.	Assessees.	Tax.	Under Rs. 2,000.		Over Rs. 2,000.			Number filed.	Wholly or partly successful.
						Assessees.	Tax.	Assessees.	Tax.			
1	2	3	4	5	6	7	8	9	10	11	12	13
	Rs.						Rs.		Rs.	Rs.		
1890-91	66,287	...	...	...	...	1,996	29,795	295	29,088	559	Not available.	
1891-92	66,682	...	...	...	...	2,001	29,646	305	29,482	298		
1892-93	67,368	...	...	...	...	1,991	30,823	296	29,335	299		
1893-94	69,244	...	...	...	...	2,007	31,477	302	29,932	681	460	153
1894-95	70,609	...	...	...	...	2,039	32,196	305	30,391	497	553	124
1895-96	68,571	...	...	...	...	2,101	33,044	305	29,985	115	486	80
1896-97	69,433	...	...	...	...	2,038	32,185	293	28,305	185	313	40
1897-98	71,878	...	...	...	...	2,050	33,322	293	28,844	129	431	108
1898-99	70,987	...	...	...	...	1,913	31,165	302	29,317	2[illegible]0	310	97
1899-1900	73,224	...	...	...	...	1,902	31,508	316	30,867	479	343	78
1900-01	73,704	...	...	...	...	1,801	30,569	318	31,278	268	459	173
1901-02	72,984	...	...	...	...	1,786	30,640	309	31,896	328	260	81
1902-03	71,263	...	...	...	...	1,802	31,123	301	30,338	94	296	104
1903-04	57,753	...	...	...	...	678	18,515	300	30,894	264	243	48
1904-05	59,526	...	...	...	...	693	18,980	311	32,254	318	227	81
1905-06	58,812	...	...	...	...	689	18,590	314	32,157	386	178	60
1906-07	60,948	...	...	...	...	688	18,368	327	33,144	478	164	66
1907-08												
1908-09												
1909-10												
1910-11												
1911-12												
1912-13												
1913-14												
1914-15												
1915-16												
1916-17												

TABLE XIV.—*Income-tax for City and Tahsils—(Part IV only).*

Year.	City of Saharanpur.				Year.	Tahsil Saharanpur.			
	Under Rs. 2,000.		Over Rs. 2,000.			Under Rs. 2,000.		Over Rs. 2,000.	
	Assessees.	Tax.	Assessees.	Tax.		Assessees.	Tax.	Assessees.	Tax.
1	2	3	4	5	1	2	3	4	5
		Rs.		Rs.			Rs.		Rs.
1890-91 ...	448	6,030	98	12,013	1890-91 ...	557	8,015	112	13,591
1891-92 ...	390	6,155	104	12,125	1891-92 ...	580	8,146	119	13,725
1892-93 ...	461	7,091	101	11,875	1892-93 ...	573	8,891	117	13,527
1893-94 ...	464	7,653	96	11,975	1893-94 ...	578	9,323	113	13,597
1894-95 ...	438	7,295	95	12,411	1894-95 ...	554	8,985	113	14,066
1895-96 ...	471	7,891	91	11,696	1895-96 ...	589	9,626	109	13,338
1896-97 ...	482	7,909	88	10,926	1896-97 ...	604	9,784	106	12,726
1897-98 ...	506	8,598	90	11,501	1897-98 ...	627	10,548	109	13,426
1898-99 ...	483	8,486	101	12,130	1898-99 ...	603	10,421	120	14,055
1899-1900 ...	449	8,381	102	13,271	1899-1900 ...	578	10,175	127	15,123
1900-01 ...	428	7,800	101	12,796	1900-01 ...	552	9,892	120	14,840
1901-02 ...	435	8,173	100	13,321	1901-02 ...	556	10,204	119	15,212
1902-03 ...	423	8,152	106	13,575	1902-03 ...	546	10,328	123	15,253
1903-04 ...	192	5,409	96	13,050	1903-04 ...	245	6,853	113	14,891
1904-05 ...	200	5,697	108	14,534	1904-05 ...	250	7,067	127	16,513
1905-06 ...	188	5,428	104	13,763	1905-06 ...	229	6,572	122	15,686
1906-07 ...	195	5,470	114	14,647	1906-07 ...	235	6,639	131	16,350
1907-08 ...					1907-08 ...				
1908-09 ...					1908-09 ...				
1909-10 ...					1909-10 ...				
1910-11 ...					1910-11 ...				
1911-12 ...					1911-12 ...				
1912-13 ...					1912-13 ...				
1913-14 ...					1913-14 ...				
1914-15 ...					1914-15 ...				
1915-16 ...					1915-16 ...				
1916-17 ...					1916-17 ...				
1917-18 ...					1917-18 ...				
1918-19 ...					1918-19 ...				

TABLE XIV.—*Income-tax by Tahsils (Part IV only)*—(concluded).

Year.	Tahsil Deoband.				Tahsil Roorkee.				Tahsil Nakur.			
	Under Rs. 2,000.		Over Rs. 2,000.		Under Rs. 2,000.		Over Rs. 2,000.		Under Rs. 2,000.		Over Rs. 2,000.	
	Assessees.	Tax.	Assessees.	Tax.	Assessees.	Tax.	Assessees.	Tax.	Assessees.	Tax.	Assessees.	Tax.
1	2	3	4	5	1	2	3	4	1	2	3	4
		Rs.		Rs.		Rs.		Rs.		Rs.		Rs.
1890-91 ...	440	6,874	71	6,577	654	9,904	71	5,488	345	5,002	41	3,432
1891-92 ...	441	6,801	69	6,446	632	9,508	74	5,718	348	5,191	43	3,593
1892-93 ...	431	6,716	62	6,363	641	9,938	74	5,830	346	5,278	43	3,615
1893-94 ...	426	6,843	71	6,524	637	10,099	75	6,252	352	5,212	43	3,559
1894-95 ...	483	7,573	72	6,462	628	9,951	78	6,376	374	5,687	42	3,487
1895-96 ...	490	7,438	73	6,546	625	9,945	77	6,406	397	6,035	46	3,695
1896-97 ...	460	7,042	70	6,156	599	9,614	73	5,809	375	5,745	44	3,614
1897-98 ...	462	7,223	70	6,080	599	9,818	67	5,442	362	5,733	47	3,896
1898-99 ...	443	6,868	71	6,142	493	8,068	63	5,227	374	5,808	48	3,893
1899-1900...	436	7,003	76	6,258	523	8,619	65	5,518	365	5,711	48	3,968
1900-01 ...	426	6,982	72	6,220	502	8,312	75	6,164	321	5,383	51	4,054
1901-02 ...	437	7,263	69	5,938	491	8,045	72	6,686	302	5,128	49	4,058
1902-03 ...	441	7,462	63	5,508	492	8,067	68	5,678	323	5,266	47	3,899
1903-04 ...	145	3,925	65	5,653	175	4,758	70	5,964	98	2,575	46	3,874
1904-05 ...	136	3,721	69	5,946	199	5,269	66	5,681	96	2,527	45	3,821
1905-06 ...	139	3,685	72	6,174	201	5,340	68	5,852	104	2,665	45	3,835
1906-07 ...	136	3,580	77	6,672	200	5,291	72	6,061	117	2,858	47	4,061
1907-08 ...												
1908-09 ...												
1909-10 ...												
1910-11 ...												
1911-12 ...												
1912-13 ...												
1913-14 ...												
1914-15 ...												
1915-16 ...												
1916-17 ...												
1917-18 ...												
1918-19 ...												

TABLE XV.—*District Board.*

Year.	Receipts.							Expenditure.									
	Education.	Medical.	Scientific, &c.	Miscellaneous.	Civil works.	Pounds.	Ferries.	Total expenditure.	Contributions to Provincial funds	General administration.	Education.	Medical.	Scientific &c.	Miscellaneous.	Civil works.	Pounds.	Debt.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1890-91 ...	5,018	2,437	..	2,181	663	2,182	...	90,036	...	1,031	27,544	10,245	...	2,622	48,594	...	...
1891-92 ...	4,889	2,730	...	2,084	285	2,079	...	80,365	...	1,093	27,489	11,075	...	2,690	38,018	...	...
1892-93 ...	5,271	3,834	...	1,871	229	2,039	...	75,720	...	1,096	27,345	12,057	...	2,779	32,443	...	...
1893-94 ...	6,566	4,620	160	2,043	279	2,826	...	74,954	...	1,012	27,572	11,602	408	3,338	31,022	...	...
1894-95 ...	6,477	4,217	645	2,511	224	2,496	...	74,760	...	1,114	28,217	11,498	1,271	3,748	28,912	...	...
1895-96 ...	7,293	3,637	403	2,382	909	2,989	...	72,784	...	1,332	27,629	11,121	1,716	950	30,036	...	...
1896-97 ...	7,859	3,969	464	2,332	2,071	2,125	...	72,968	...	1,356	28,606	11,293	2,038	900	28,775	...	...
1897-98 ...	6,039	3,674	478	4,271	5,571	2,231	...	1,05,660	26,883	1,144	28,058	9,996	2,115	...	37,464	...	...
1898-99 ...	6,942	3,845	500	4,268	4,944	2,225	...	1,04,414	22,500	1,629	27,916	9,465	1,942	...	40,962	...	...
1899-1900...	6,983	3,680	496	4,285	3,821	3,920*	...	1,06,280	22,500	1,693	29,039	10,321	1,806	...	39,844	982	95
1900-01 ...	6,826	4,684	712	4,761	4,506	4,349	326†	1,10,190	21,150	1,778	30,501	10,288	2,485	69	42,476	1,203	240
1901-02 ...	9,222	6,968	608	367	4,810	3,968	459	1,08,450	22,500	1,834	32,108	11,567	2,287	159	36,693	1,302	...
1902-03 ...	10,456	7,218	714	746	4,563	3,346	697	1,12,840	15,849	3,245	35,873	13,786	2,165	39	40,490	1,327	66
1903-04 ...	9,046	7,253	670	649	4,347	4,240	616	1,18,355	12,946	2,018	39,930	15,058	2,493	58	44,398	1,399	55
1904-05 ...	10,745	7,011	509	918	3,872	5,184	702	1,28,765	17,628	2,142	40,767	15,186	2,210	119	48,919	1,784	10
1905-06 ...	11,644	7,318	546	516	5,190	4,609	410	1,28,549	...	2,464	49,045	15,594	2,701	281	56,653	1,821	...
1906-07 ...	17,035	7,172	87	727	5,199	5,440	295	1,27,756	...	2,801	54,357	14,847	2,913	190	50,566	2,046	36
1907-08 ...	25,261	6,910	84	912	2,278	6,340	692	1,66,730	...	3,087	67,210	15,049	3,528	898	74,310	2,252	396
1908-09 ...																	
1909-10 ...																	
1910-11 ...																	
1911-12 ...																	
1912-13 ...																	
1913-14 ...																	
1914-15 ...																	
1915-16 ...																	
1916-17																	

* Formerly net receipts only were shown. From this year receipts and also expenditure are given.
† From this year the gross receipts from ferries were for the first time credited to the district board.

TABLE XVI.—*Municipality of Saharanpur.*

Year.	Income.							Expenditure.										
	Octroi.	Tax on houses and lands.	Other taxes.	Rents.	Loans.	Other sources.	Total.	Administration and collection of taxes.	Public safety.	Water-supply and drainage.		Conservancy.	Hospitals and dispensaries.	Public works.	Public instruction.	Other heads.	Total.
										Capital.	Maintenance.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.
1890-91	41,707	1,250	68	1,921	...	10,090	55,036	6,600	8,338	...	...	12,280	2,736	13,885	1,241	12,902	57,982
1891-92	42,483	2,860	...	1,703	...	21,135	68,181	6,698	8,366	...	1,867	14,111	2,254	9,194	1,345	30,674	74,509
1892-93	40,561	1,757	...	1,787	...	8,229	52,334	6,330	8,098	532	2,042	13,660	2,239	12,602	1,694	8,617	55,814
1893-94	48,578	1,885	...	1,715	...	4,037	56,215	6,424	8,349	...	1,632	16,420	2,832	8,148	1,374	8,472	53,651
1894-95	51,924	2,071	413	2,123	...	5,161	61,692	8,248	8,763	...	1,880	17,400	2,480	14,215	1,374	6,230	60,590
1895-96	48,764	2,131	1,276	2,449	...	6,763	61,383	8,806	8,616	3,230	1,189	15,064	2,594	13,153	1,494	5,632	59,778
1896-97	44,807	2,066	894	2,256	...	5,006	55,029	8,309	9,929	474	1,250	18,538	2,687	12,391	1,405	5,621	60,604
1897-98	47,461	1,979	707	2,323	...	4,783	57,253	8,687	9,473	94	1,671	19,802	3,012	4,944	1,298	4,885	53,866
1898-99	53,598	2,242	783	2,618	...	6,655	65,896	9,150	10,817	2,647	1,177	18,778	2,839	5,127	1,509	2,639	54,683
1899-1900	57,972	2,166	959	2,690	...	10,531	74,318	9,339	10,449	1,222	2,696	18,400	2,934	13,202	1,475	6,164	65,881
1900-01	59,286	2,291	824	2,952	...	6,588	71,941	9,317	10,407	793	11,569	20,033	5,257	4,637	2,745	3,032	67,790
1901-02	67,514	2,064	...	4,992	...	7,191	81,761	10,245	11,144	272	1,134	20,291	4,407	11,395	2,866	7,417	69,171
1902-03	62,163	2,246	...	4,747	...	7,484	76,640	11,150	11,801	534	1,586	19,316	4,430	19,425	3,307	5,913	77,456
1903-04	64,656	2,234	...	3,728	...	21,936	92,554	11,624	12,627	262	1,464	28,049	4,483	6,376	3,698	8,808	77,391
1904-05	69,361	2,275	...	4,386	...	17,721	93,743	11,663	12,828	627	1,434	28,964	4,229	5,953	4,305	22,406	92,409
1905-06	76,444	2,344	...	2,754	...	22,837	1,04,379	12,497	9,817	459	643	25,678	4,316	7,396	4,591	10,567	75,964
1906-07	76,682	2,084	...	3,418	...	20,187	1,02,371	14,607	3,980	490	1,597	24,338	4,474	16,187	5,089	8,878	79,640
1907-08	80,504	2,976	...	3,615	...	31,153	1,18,248	13,609	8,709	...	2,450	26,038	4,634	14,339	5,514	23,729	99,022
1908-09																	
1909-10																	
1910-11																	
1911-12																	
1912-13																	
1913-14																	
1914-15																	
1915-16																	
1916-17																	

TABLE XVI.—*Municipality of Hardwar Union.*

Income.

Year.	Octroi.	Tax on houses and lands.	Other taxes.	Rents.	Loans.	Other sources.	Total.
1	2	3	4	5	6	7	8
	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.
1890-91	27,362	...	...	3,582	...	3,503	34,447
1891-92	26,225	...	...	2,667	...	1,676	30,568
1892-93	17,845	...	...	1,151	...	2,374	21,370
1893-94	24,758	...	..	1,922	...	3,811	30,491
1894-95	22,858	...	19,097	1,909	...	18,594	62,458
1895-96	25,439	...	21,853	1,900	...	5,331	54,523
1896-97	23,883	...	15,925	2,810	5,000	3,992	51,610
1897-98	15,524	...	16,766	1,607	...	5,349	39,246
1898-99	25,797	...	13,836	1,645	...	3,549	44,827
1899-1900	25,145	...	17,135	2,197	...	9,375	53,852
1900-01	24,209	...	16,367	2,037	...	3,520	46,133
1901-02	31,195	...	24,917	1,729	...	4,594	62,435
1902-03	34,283	...	24,064	2,433	...	3,567	64,347
1903-04	31,259	...	32,757	3,236	...	23,953	91,205
1904-05	33,435	...	29,716	2,628	...	15,663	81,442
1905-06	36,317	...	30,014	2,553	...	7,081	75,965
1906-07	37,183	...	27,973	3,675	...	8,347	77,178
1907-08	42,155	...	40,852	4,139	...	7,134	94,280
1908-09							
1909-10							
1910-11							
1911-12							
1912-13							
1913-14							
1914-15							
1915-16							
1916-17							

Expenditure.

Year.	Administration and collection of taxes.	Public safety.	Water-supply and drainage. Capital.	Water-supply and drainage. Maintenance.	Conservancy.	*Hospitals and dispensaries.	Public works.	Public instruction.	Other heads.	Total.
1	9	10	11	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs	Rs.	Rs.	Rs.
1890-91	3,229	2,978	...	...	3,741	274	14,761	642	2,098	27,723
1891-92	3,585	3,171	...	453	13,605	503	8,765	365	4,378	34,825
1892-93	3,270	3,159	...	164	6,453	386	12,527	769	2,688	29,416
1893-94	3,452	3,352	1,500	833	6,446	584	7,805	486	3,344	27,802
1894-95	3,204	3,435	550	1,760	6,550	390	2,551	485	18,381	37,306
1895-96	18,757	3,574	18,851	1,818	6,498	462	3,564	521	20,804	74,849
1896-97	3,356	4,089	8,234	1,715	9,252	414	3,020	484	11,255	41,819
1897-98	3,677	4,362	300	866	7,168	380	2,807	474	22,388	42,422
1898-99	3,966	4,447	...	1,093	8,179	491	2,416	500	17,000	38,092
1899-1900	4,045	4,409	4,267	1,213	8,903	505	11,451	690	20,372	55,855
1900-01	4,916	4,438	1,037	232	9,367	962	8,084	802	19,090	48,928
1901-02	4,043	5,832	...	2,932	8,529	1,027	3,429	1,239	15,037	42,068
1902-03	6,834	5,336	1,751	251	9,974	1,125	9,332	1,575	23,479	59,657
1903-04	6,286	5,779	698	24	9,043	1,268	11,473	1,716	88,013	1,24,300
1904-05	6,624	6,490	1,244	1,493	8,843	2,779	10,940	2,033	19,510	59,956
1905-06	6,698	3,747	2,446	185	10,214	1,594	12,858	2,432	19,965	60,139
1906-07	7,203	2,437	3,058	477	10,854	1,640	17,745	2,506	16,949	62,869
1907-08	6,613	4,040	1,877	994	11,497	1,241	11,679	2,386	20,135	60,462
1908-09										
1909-10										
1910-11										
1911-12										
1912-13										
1913-14										
1914-15										
1915-16										
1916-17										

TABLE XVI.—*Municipality of Deoband.*

Year.	Income.							Expenditure.									
	Octroi.	Tax on houses and lands.	Other taxes.	Rents.	Loans.	Other sources.	Total.	Administration and collection of taxes.	Public safety.	Water-supply and drainage.		Conservancy.	Hospitals and dispensaries.	Public works.	Public instruction.	Other heads.	Total.
										Capital.	Maintenance.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1890-91	8,774	...	...	1,209	...	523	10,506	1,951	3,370	..	...	1,693	146	3,169	577	634	11,540
1891-92	11,661	...	...	53	...	1,395	13,109	1,747	3,910	1,024	289	2,251	200	812	700	986	11,919
1892-93	9,714	...	...	51	...	2,470	12,235	1,911	3,688	700	211	2,338	200	2,599	1,047	960	13,654
1893-94	11,251	...	...	52	...	2,674	13,977	1,701	3,730	2,461	266	2,388	250	1,687	1,205	767	14,455
1894-95	10,204	...	...	93	...	1,202	11,499	1,925	3,687	400	507	2,306	200	716	1,189	729	11,659
1895-96	10,040	...	...	95	...	2,074	12,209	1,860	3,346	...	376	2,671	200	429	1,309	786	10,977
1896-97	9,095	...	...	98	...	2,052	11,245	1,989	3,684	...	603	2,647	230	546	1,403	734	11,836
1897-98	10,357	...	...	75	...	2,425	12,857	2,117	3,735	...	597	3,048	200	540	1,362	770	12,369
1898-99	12,264	...	...	72	...	1,531	13,867	2,250	3,716	...	707	2,470	200	443	473	749	11,008
1899-1900	12,016	...	...	92	...	4,583	16,691	2,596	3,626	...	607	2,789	200	4,057	578	1,098	15,551
1900-01	11,159	...	..	103	...	2,546	13,808	2,648	3,913	1,831	...	3,182	200	4,865	786	1,087	18,512
1901-02	17,140	..	...	261	...	2,792	20,193	2,779	4,059	...	33	3,246	396	1,275	1,082	1,599	14,469
1902-03	15,935	...	...	277	...	2,282	18,494	3,664	4,208	...	836	3,521	440	1,095	1,179	2,071	17,014
1903-04	14,640	...	...	348	...	22,400	37,388	3,310	4,969	...	1,601	3,155	533	2,107	1,241	981	17,897
1904-05	17,506	...	...	1,169	...	4,085	22,760	3,245	5,273	...	1,328	2,970	505	1,298	1,336	1,212	17,167
1905-06	20,348	...	1,440	1,548	...	3,953	27,289	3,613	3,243	5,682	...	3,982	524	4,295	1,278	1,559	24,176
1906-07	17,641	...	1,653	1,561	...	23,632	44,487	3,877	1,484	13,883	667	3,621	580	5,556	1,169	1,331	32,168
1907-08	19,617	...	989	1,001	...	2,247	23,854	3,853	2,151	14,836	658	5,174	541	13,257	1,283	3,724	45,477
1908-09																	
1909-10																	
1910-11																	
1911-12																	
1912-13																	
1913-14																	
1914-15																	
1915-16																	
1916-17																	

TABLE XVI.—*Municipality of Roorkee.*

Year.	Income.							Expenditure.									
	Octroi.	Tax on houses and lands.	Other taxes.	Rents.	Loans.	Other sources.	Total.	Administration and collection of taxes.	Public safety.	Water-supply and drainage.		Conservancy.	Hospitals and dispensaries.	Public works.	Public instruction.	Other heads.	Total.
										Capital.	Maintenance.						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1890-91	...	3,035	4,948	5,116	...	625	13,724	979	1,323	...	48	4,307	255	6,136	661	628	14,337
1891-92	...	3,053	4,177	4,172	...	2,816	14,218	1,160	1,306	2,076	20	5,010	409	2,872	661	764	14,278
1892-93	...	2,982	4,160	4,322	...	2,019	13,483	1,124	1,411	1,368	391	4,841	495	1,414	680	933	12,657
1893-94	580	3,074	4,070	4,413	...	1,838	13,975	1,262	1,755	926	166	4,980	506	2,849	666	1,175	14,285
1894-95	497	3,171	4,262	4,458	...	2,007	14,395	1,344	1,860	89	11	6,099	604	2,432	665	901	14,005
1895-96	...	3,067	4,109	4,512	...	2,277	13,965	1,412	1,952	543	143	5,375	639	2,710	665	1,423	14,862
1896-97	...	3,113	4,105	4,378	...	2,279	13,875	1,520	2,174	...	42	5,880	740	2,037	660	869	13,922
1897-98	...	3,010	4,129	4,533	...	2,058	13,730	1,227	2,090	16	46	5,931	1,305	1,346	660	940	13,561
1898-99	14,140	3,010	200	4,244	...	2,056	23,650	4,517	2,224	...	241	5,295	729	2,813	660	2,479	18,958
1899-1900	14,141	3,000	...	4,987	...	2,129	24,257	3,805	2,380	158	139	5,833	827	4,004	660	2,414	20,220
1900-01	13,977	3,016	...	4,338	...	3,086	24,417	4,336	2,425	1,037	107	6,138	828	8,058	1,198	2,835	26,962
1901-02	16,036	2,965	...	4,819	...	2,073	25,893	5,093	2,424	...	837	5,427	711	4,004	1,275	3,149	22,920
1902-03	14,609	2,822	...	4,899	...	1,907	24,237	4,506	3,370	...	153	5,847	868	4,765	1,388	4,329	25,226
1903-04	16,003	3,011	...	4,926	...	3,432	27,372	3,793	3,393	...	...	5,486	960	9,743	1,379	3,332	28,086
1904-05	16,851	2,797	...	5,019	...	3,574	28,241	4,177	3,323	...	...	4,927	960	4,614	1,329	4,338	23,668
1905-06	19,050	2,707	...	4,919	...	3,096	29,772	4,635	1,782	...	...	5,495	951	7,190	1,390	4,010	25,453
1906-07	18,155	2,983	...	5,088	...	3,598	29,824	5,923	690	2,710	558	6,610	1,015	5,747	1,784	7,231	32,268
1907-08	24,662	2,945	...	4,499	...	3,317	35,423	6,389	1,620	...	2,369	8,641	1,120	10,423	1,876	5,755	38,193
1908-09																	
1909-10																	
1910-11																	
1911-12																	
1912-13																	
1913-14																	
1914-15																	
1915-16																	
1916-17																	

TABLE XVII.—*Distribution of Police*, 1907.

Thana.	Sub-Inspectors.	Head Constables.	Constables.	Municipal Police.	Town Police.	Rural Police.	Road Police.
1	2	3	4	5	6	7	8
Saharanpur ...	2	4	19	133	...	87	6
Behat ...	1	1	7	...	...	105	2
Mirzapur ...	1	1	6	...	...	51	2
Muzaffarabad ...	1	1	6	...	...	65	...
Mohand ...	1	1	8	...	...	33	4
Fatehpur ...	1	1	8	...	...	89	10
Deoband ...	3	2	15	49	...	126	2
Badgaon ...	1	1	4	...	...	64	...
Rampur ...	1	2	9	...	13	99	2
Nanauta ...	1	...	7	...	6	42	...
Nagal ...	2	1	7	...	...	115	...
Roorkee ...	4	10	57	31	...	102	4
Bhagwanpur ...	1	1	5	...	5	75	6
Jwalapur ...	3	4	88	...	...	65	4
Sultanpur ...	1	...	7	...	...	47	...
Manglaur ...	2	1	9	...	29	110	6
Dausni ...	1	1	6	...	...	47	...
Nakur ...	2	2	14	...	17	117	6
Chilkana ...	1	1	8	...	11	73	...
Sarsawa ...	1	1	9	...	7	75	4
Gangoh ...	...	...	...	...	32	81	...
Bassi ...	1	1	5	...	...	24	...
Civil Reserve ...	7	17	107	...	...	...	...
Armed Police ...	1	18	120	...	...	...	...
Total ...	40	72	531	213	120	1,692	58

TABLE XVIII.—*Education.*

Year.	Total.			Secondary education.			Primary education.		
	Schools and Colleges.	Scholars.		Schools.	Scholars.		Schools.	Scholars.	
		Males.	Females.		Males.	Females.		Males.	Females.
1	2	3	4	5	6	7	8	9	10
1896-97 ...	157	5,445	286	13	1,213	...	143	4,140	286
1897-98 ...	149	5,230	320	13	1,134	...	135	4,003	320
1898-99 ...	145	5,335	334	11	1,381	...	133	3,953	334
1899-1900...	155	5,890	326	12	1,572	...	142	4,232	326
1900-01 ...	150	5,952	316	12	1,573	...	137	4,313	316
1901-02 ...	153	6,029	376	12	1,603	...	138	4,316	376
1902-03 ...	198	7,181	567	12	1,585	...	184	5,484	567
1903-04 ...	196	7,284	604	12	1,664	...	182	5,515	604
1904-05 ...	197	7,560	602	13	1,682	...	184	5,878	602
1905-06 ...	217	9,074	607	13	1,842	...	204	7,232	607
1906-07 ...	219	7,976	584	14	1,812	...	205	6,164	584
1907-08 ...									
1908-09 ...									
1909-10 ...									
1910-11 ...									
1911-12 ...									
1912-13 ...									
1913-14 ...									
1914-15 ...									
1915-16 ...									
1916-17 ...									
1917-18 ...									
1918-19 ...									

List of Schools, 1907.

Tahsil.	Pargana.	Locality.	Class.	Average attendance.
Saharanpur.	Saharanpur	Saharanpur ...	High School ...	271
		Ditto ...	Anglo-Vernacular Upper Primary aided.	69
		Ditto ...	Middle Vernacular...	81
		Saharanpur, Branch	Lower Primary Municipal.	282
		Ditto ditto	Ditto ...	24
		Saharanpur, Harnathpura.	Ditto ...	48
		Ditto Pathanpura.	Ditto ...	22
		Ditto Orphanage.	Primary Municipal aided.	51
		Ditto Mission	Primary Municipal aided, girls'.	72
		Ditto Arya Samaj Pathshala.	Ditto ...	88
		Ditto Shah Bahloli.	Lower Primary Municipal girls'.	40
		Mughal Mazra ...	Upper Primary ...	31
		Ghanakhandi ...	Lower Primary ...	21
		Randaul ...	Ditto ...	21
		Sheikhpura ...	Ditto ...	24
		Malhaipur ...	Ditto ...	20
		Pahki ...	Ditto ...	29
		Tajpura ...	Ditto ...	22
		Sabdalpur ...	Ditto ...	17
		Chanahti Gara ...	Ditto ...	25
		Bhojawala ...	Ditto ...	22
		Ditto ...	Indigenous ...	18
		Topri	Lower Primary aided.	20
		Nalhera Gujar ...	Ditto ...	30
		Reri Malakpur ...	Ditto ...	20
		Misar Murar ...	Ditto ...	14
		Sarak Dadhli ...	Indigenous ...	14
		Chhidbana ...	Ditto ...	4
		Hauzkheri ...	Ditto ...	10
		Chatka ...	Ditto ...	20
		Deola ...	Ditto ...	8
		Muhammadpur Gara	Ditto ...	24
		Meharwani ...	Ditto ...	15
		Mahesri ...	Ditto ...	16
		Bijopuri ...	Ditto ...	12
	Faizabad	Behat ...	Upper Primary ...	48
		Sadhauli ...	Lower Primary ...	20
		Raipur ...	Ditto ...	23
		Ditto ...	Indigenous ...	50
		Lodipur ...	Lower Primary ...	18
		Ditto ...	Indigenous ...	9
		Faizabad ...	Lower Primary aided.	16

List of Schools, 1907—(continued).

Tahsil.	Pargana.	Locality.	Class.	Average attendance.
Saharanpur—(*concluded*).	Faizabad—(*concluded*).	Padli Kushalpur ...	Indigenous ...	5
		Behat ...	Ditto ...	36
		Islampur Bartha ...	Ditto ...	5
		Ghagreki ...	Ditto ...	4
		Asgharpur ...	Ditto ...	2
		Salempur ..	Ditto ...	5
		Mirzapur ...	Ditto ...	20
		Murtazapur ...	Ditto ...	35
	Muzaffarabad ...	Naugawan ...	Upper Primary ...	31
		Sansarpur ...	Ditto ...	72
		Musail ...	Ditto ...	49
		Talapur ...	Ditto ...	55
		Biharigarh ...	Upper Primary, aided.	33
		Muzaffarabad ...	Lower Primary ...	26
		Jasmaur ...	Ditto ...	27
		Thapal Ismailpur .	Ditto ...	14
		Khujnawar ...	Ditto ...	15
		Khurampur ...	Ditto ...	30
		Kalsia ...	Lower Primary, aided	23
		Anwarpur Barauli ..	Ditto ...	25
		Pathora ...	Indigenous ...	20
		Muradnagar ...	Ditto ...	20
		Abdullahpur ...	Ditto ...	25
		Chaupur ...	Ditto ...	15
	Haraura ...	Kailaspur ...	Upper Primary ...	60
		Bhalswa Isapur ...	Ditto ...	50
		Bahera ...	Ditto ..	50
		Mahmudpur Tiwari	Ditto ...	42
		Reri	Ditto ...	50
		Khajuri ...	Lower Primary ...	22
		Kota ...	Ditto ...	25
		Ditto ...	Indigenous ...	22
		Hasanpur ...	Lower Primary ...	19
		Haraura .	Ditto ...	24
		Kamalpur ..	Ditto ...	19
		Pali ...	Ditto ...	25
		Kharkhari ...	Ditto ...	32
		Gharaula ..	Ditto ...	22
		Lakhnaur ...	Lower Primary aided.	17
		Baheri Nagal ..	Ditto ...	23
		Halwana ...	Ditto ...	24
		Datauli Mughal ...	Ditto ...	23
		Hariabas ...	Indigenous ...	4
		Fatehpur Bhadon ..	Ditto ...	5
		Kalalhoti ...	Ditto ...	5
Deoband.	Deoband ...	Deoband ...	Anglo-Vernacular ...	57
		Ditto ...	Middle Vernacular.	55
		Ditto, Branch ...	Lower Primary-Municipal.	56

List of Schools, 1907—(continued).

Tahsil.	Pargana.	Locality.	Class.	Average attendance.
Deoband—(*continued*).	Deoband—(*continued*).	Deoband, Sanskrit Pathshala.	Lower Primary Municipal, aided.	46
		Ditto ...	Lower Primary Municipal aided girls'.	48
		Ditto ...	23 indigenous schools.	289
		Rajupur ...	Upper Primary ...	57
		Rankhandi ...	Ditto ...	30
		Jarauda Pande ...	Lower Primary ...	22
		Badgaon ...	Ditto ...	20
		Bhaila ...	Ditto ...	19
		Bahera ...	Ditto ...	11
		Kuri	Ditto ...	13
		Ambahta Shekha ...	Lower Primary, aided.	40
		Gaupoli ...	Ditto ...	26
		Kulsat ...	Ditto ...	29
		Manki ...	Ditto ...	25
		Nalhera Asa ...	Ditto ...	30
		Ghalauli ...	Ditto ...	22
	Rampur ...	Rampur ...	Middle Vernacular	75
		Ditto ...	Indigenous (Arabic)	...
		Ditto ...	Ditto (Hindi)	...
		Chakwali ...	Upper Primary ...	46
		Bhabsi ...	Ditto ...	38
		Sadhauli Haria ...	Ditto ...	55
		Nanauta ...	Ditto ...	49
		Ditto ...	Indigenous (Arabic)	...
		Abha ...	Lower Primary ...	17
		Landhaura ...	Ditto ...	13
		Pahansu ...	Ditto ...	25
		Sona Arjunpur ...	Ditto ...	15
		Thaska ...	Ditto ...	24
		Tikraul ...	Ditto ...	25
		Sirsli Kalan ...	Upper Primary, aided.	36
		Bhankla ...	Lower Primary, aided.	22
		Ahmadpur ...	Ditto ...	21
		Ghathera ...	Ditto ...	28
		Morah ...	Indigenous ...	17
		Khudana ...	Ditto ...	18
		Nalhera Budhakhera	Ditto ...	...
		Guram ...	Ditto ...	...
		Barsa ...	Ditto ...	...
	Nagal ...	Khera Mughal ...	Upper Primary ...	46
		Pandauli ...	Ditto ...	47
		Ditto ...	Lower Primary, girls'.	40
		Nagal ...	Lower Primary ...	27
		Bachutti ...	Ditto ...	17

List of Schools, 1907—(continued).

Tahsil.	Pargana.	Locality.	Class.	Average attendance.
Deoband—(*concluded*).	Nagal—(*concld.*).	Banehra ...	Lower Primary ...	24
		Bastam ...	Ditto ...	16
		Chandaina Koli ...	Ditto ...	26
		Kapuri ...	Ditto ...	10
		Paharpur ...	Ditto ...	24
		Danghera ...	Ditto ...	28
		Ditto ...	Lower Primary aided, girls'.	44
		Paniali ...	Lower Primary, aided.	24
		Tansipur ...	Ditto ...	20
		Khajurwala Khurd	Ditto ...	28
		Gangheri ...	Ditto ...	22
		Sakhan Khurd ...	Ditto ...	21
		Tajpura ...	Ditto ...	32
		Sursaina ...	Ditto ...	22
		Amauli ...	Ditto ...	33
		Sohanchira ...	Ditto ...	25
		Ambahta Chand ...	Indigenous ...	...
		Mirzapur ...	Ditto ...	...
Roorkee.	Roorkee ...	Roorkee ...	Middle Vernacular,	141
		Ditto, Orman school.	Anglo-Vernacular ...	71
		Ditto, Orphanage,	Lower Primary, aided.	29
		Ditto, Branch ...	Lower Primary, Municipal.	40
		Ditto, Arya Samaj.	Lower Primary, aided, girls'.	34
		Ditto, Mission ...	Ditto ...	13
		Ditto ...	Five indigenous schools.	162
		Salempur ...	Upper Primary ...	44
		Ditto ...	Lower Primary, aided, girls'.	23
		Bharapur ...	Lower Primary ...	22
		Imlikhera ...	Ditto ...	24
		Bijhauli ...	Ditto ...	20
		Dandhera ...	Ditto ...	16
		Aurangabad ...	Lower Primary, aided.	28
		Safarpur ...	Ditto ...	20
		Daulatpur ...	Ditto ...	22
		Piran Kaliar ...	Ditto ...	22
		Rahmatpur ...	Ditto ...	24
		Mahewar ...	Ditto ...	25
		Budhakheri ...	Indigenous ...	20
		Aneki ...	Ditto ...	4
		Rampur ...	Ditto ...	15
		Ditto ...	Ditto, girls' ...	12
	Bhagwanpur ...	Bhagwanpur ...	Upper Primary ...	58
		Chodiala ...	Ditto ...	57

List of Schools, 1907—(continued).

Tahsil.	Pargana.	Locality.	Class.	Average attendance.
Roorkee—(*continued*).	Bhagwanpur—(*concld.*).	Sakrauda ...	Upper Primary ...	48
		Ditto ...	Indigenous ...	35
		Khailpur	Lower Primary ...	21
		Srichandi ...	Ditto ...	27
		Kheri Shikohpur ...	Ditto ...	27
		Ditto ...	Indigenous ...	8
		Bhalswa ...	Lower Primary ...	17
		Khubanpur ...	Ditto ...	21
		Baheri Sadabad ...	Ditto ...	9
		Paniala ...	Ditto ...	28
		Sikandarpur ...	Ditto ...	27
		Alawalpur ..	Ditto ...	30
		Chhapar Sherafghanpur.	Lower Primary, aided	21
		Nalhera Anantpur	Ditto ...	26
		Chauli Shah-ud-din-pur.	Ditto ...	28
		Hasanpur ...	Ditto ...	19
		Harajauli ...	Ditto ...	21
		Ruhalki Dayalpur...	Ditto ...	22
		Manikpur ...	Indigenous ...	14
		Khajuri ...	Ditto ...	12
	Jwalapur ...	Jwalapur ...	Middle Vernacular...	88
		Ditto, Branch...	Lower Primary, Municipal.	34
		Ditto, Mission...	Lower Primary, Municipal, aided.	47
		Ditto, Kalu Ram Pathshala.	Ditto ...	64
		Ditto, Diwan Padha Pathshala.	Ditto ...	36
		Ditto, Chhote Khan.	Ditto ...	33
		Ditto, Anglo-Sanskrit Pathshala	Ditto ...	25
		Ditto, Mission...	Lower Primary Municipal aided, girls'.	22
		Kankhal ...	Upper Primary Municipal.	61
		Ditto, Bhagirath Pathshala.	Lower Primary Municipal aided.	48
		Ditto, Niadar Pathshala.	Ditto ...	50
		Hardwar ...	Lower Primary, Municipal.	22
		Sultanpur Kunari	Upper Primary ...	43
		Raisi ...	Lower Primary ...	17
		Ruhalki ...	Lower Primary, aided.	22
		Atmalpur Bangla...	Ditto ...	20
		Bahadurabad ...	Ditto ...	28
		Garh ...	Ditto ...	24
		Mirpur ...	Ditto ...	21
		Khizarpur ...	Indigenous ..	12

List of Schools, 1907—(continued).

Tahsil	Pargana.	Locality.	Class.	Average attendance.
Roorkee—(*concluded*).	Manglaur ...	Manglaur ...	Middle Vernacular.	127
		Ditto ...	Three indigenous schools.	...
		Libarheri ...	Upper Primary ...	40
		Landhaura ...	Ditto ...	65
		Ditto ...	Indigenous ...	...
		Mundlana ..	Lower Primary ...	23
		Gadharauna ...	Ditto ...	22
		Narsain ...	Ditto ...	26
		Jabarhera ..	Ditto ...	28
		Ditto ...	Lower Primary, aided.	25
		Thitki ...	Ditto ...	22
		Udalheri ...	Ditto ...	19
		Gadarjuda ...	Ditto ...	26
		Sherpur ...	Ditto ...	17
		Kherajat ...	Ditto ...	18
		Harajauli ...	Indigenous ...	...
		Nagla Salaru ...	Ditto ...	...
Nakur.	Nakur ...	Nakur ..	Middle Vernacular...	97
		Do.	Lower Primary, girls'.	11
		Do.	Four indigenous schools.	...
		Ambahta ...	Middle Vernacular...	84
		Ditto ...	Five indigenous schools.	...
		Harpali ...	Upper Primary ...	37
		Khera Afghanan	Ditto ...	37
		Ditto ...	Lower Primary aided, girls'.	30
		Ditto ...	Two indigenous, schools.	...
		Badhi	Lower Primary ...	27
		Randewa ...	Ditto ...	23
		Aghiana ...	Ditto ...	28
		Islamnagar ...	Ditto ...	22
		Ditto ...	Indigenous ...	...
		Jajwa	Lower Primary ...	17
		Dhaurala ...	Ditto ...	25
		Ditto ...	Indigenous ...	...
		Bambala ...	Ditto ...	...
	Sultanpur ...	Chilkana ...	Upper Primary ...	63
		Dumjhera ...	Lower Primary ...	31
		Bartha Kayasth ...	Ditto ...	29
		Budha Khera ...	Ditto ...	20
		Gordhanpur ...	Ditto ...	18
		Sultanpur ...	Model girls' school	41
		Dandauli Khera ...	Lower Primary aided.	22
		Chauri Mandi ...	Ditto ...	12
		Badgaon ...	Ditto ...	20

List of Schools, 1907—(*concluded*).

Tahsil.	Pargana.	Locality.	Class.	Average attendance.
Nakur—(*concluded*).	Sarsawa ...	Sarsawa ...	Upper Primary ...	43
		Dhulapra ...	Lower Primary ...	30
		Jhabiran ..	Ditto ...	21
		Sanpla ...	Ditto ...	20
		Jagehta Najib ...	Lower Primary aided.	19
		Majri	Indigenous ...	...
	Gangoh ...	Gangoh ...	Middle Vernacular...	113
		Do.	Lower Primary, aided.	59
		Do.	Lower Primary girls'.	31
		Do.	Lower Primary, aided, girls'.	26
		Do.	Fourteen indigenous schools.	...
		Titron ...	Middle Vernacular...	76
		Do.	Three indigenous schools.	...
		Jandkhera ...	Upper Primary ...	41
		Jharwan ...	Lower Primary ...	31
		Dudhla ...	Ditto ...	28
		Lakhnauti ...	Ditto ...	33
		Ditto ...	Two indigenous schools.	...
		Sangathera ...	Lower Primary aided.	23
		Papri	Ditto ...	20
		Khandlana ...	Ditto ...	23
		Shahidpura ...	Indigenous ...	...
		Kunda... ...	Ditto ...	...
		Thola Fatehpur ...	Ditto ...	...

ROADS, 1907.

	Miles.	fur.
A.—Provincial.		
(i) Meerut to Roorkee and Dehra	49	0·3
(ii) Saharanpur to Fatehpur and Dehra	14	0·2
(iii) Saharanpur to Chakrata	33	4
Total ...	96	4·5
B.—Local.		
I.—First-class roads, metalled, bridged and drained throughout.		
(i) Saharanpur to Karnal (*vide* II, i)	6	0
(ii) Saharanpur to Umbala (*vide* II, i)	2	5
(iii) Saharanpur to Muzaffarnagar (*vide* II, iii)	5	1
(iv) Saharanpur Station roads	3	1·85
(v) Pilgrim road	1	7
(vi) Sarsawa Station approach road	1	0 76
(vii) Deoband Station approach road	0	6·24
Total ...	20	5·85
II.—Second-class roads, metalled, bridged and drained throughout.		
(i) Saharanpur to Karnal (*vide* I, i)	25	0
(i) Saharanpur to Umballa (*vide* I, ii)	10	4
(iii) Saharanpur to Muzaffarnagar *vide* I, iii)	26	0
(iv) Saharanpur to Rampur and Shamli	23	0
(v) Saharanpur to Chilkana	8	0
(vi) Sarsawa to Chilkana	6	4
(vii) Sarsawa to Nakur	9	2
(viii) Nakur to Rampur, Badgaon, and Deoband	30	0
(ix) Nakur to Gangoh and Muzaffarnagar	21	2
(x) Gangoh to Badgaon	17	0
(xi) Nagal to Gagalheri	11	0
(xii) Nagal railway station road	0	6
(xiii) Gagalheri to Bhagwanpur	9	2
(xiv) Bhagwanpur to Bahadurabad and Hardwar	23	0
(xv) Roorkee to Bahadurabad	9	0
(xvi) Roorkee to Dhanauri	4	4
(xvii) Roorkee to Bhagwanpur	8	0
(xviii) Roorkee to Laksar	11	0
(xix) Manglaur to Deoband	14	4
(xx) Manglaur to Lakhnaur	16	0
(xxi) Station approach roads	7	1
Total ...	290	5

ROADS, 1907.—(*concluded*).

	Miles.	fur.
III.—Fifth-class roads, cleared, partially bridged and drained.		
(i) Submontane road, Hardwar to Khara	43	0
(ii) Roorkee to Jabarhera	7	0
(iii) Laksar to Sultanpur	5	0
(iv) Manglaur to Laksar	6	0
(v) Deoband to Bijnor	6	0
(vi) Fatehpur to Muzaffarabad	6	0
(vii) Titron to Thana Bhawan	0	1
Total ...	73	1
IV.—Sixth-class roads, cleared only.		
(i) Landhaura to Bahadurabad	12	0
(ii) Kankhal to Laksar	12	0
(iii) Kankhal to Rani Mazra	9	0
(iv) Sultanpur to Bhogpur...	4	0
(v) Bhagwanpur to Chodiala	7	0
(vi) Fatehpur to Kheri	4	0
(vii) Roorkee to Amlia	4	0
Total ..	52	0
GRAND TOTAL ...	533	0·35

FERRIES, 1907.

River.	Name of Ferry.	Village.	Pargana.	Tahsil.	Management.	Income.
						Rs.
Ganges.	Chandi ...	Majhra ...	Jwalapur .	Roorkee ...	District Board.	575
	Shishamwali	Jagjitpur ...	Ditto ...	Ditto ...	Ditto ...	
	Nagal ...	Jaspur Ramjitpur.	Ditto ...	Ditto ...	District Board, Bijnor.	...
	Balawali ...	Gangadaspur.	Ditto ...	Ditto ...	District Board, Bijnor.	...
Banganga.	Rani Mazra	Rani Mazra...	Ditto ...	Ditto ...	District Board.	5
Hindan.	Maheshpur...	Maheshpur...	Deoband ...	Deoband ...	Private...	...
	Nalhera ...	Nalhera Khurd	Ditto ...	Ditto ...	Ditto ...	...
Katha	Sangathera ..	Sangathera ...	Gangoh ...	Nakur ...	District Board.	2
Jumna.	Rajghat ...	Sadullahpur	Sultanpur.	Ditto ...	District Board, Umballa.	...
	Mandhaur ...	Mandhaur ...	Sarsawa ...	Ditto ...	Ditto ...	...
	Changawan ...	Fatehpur Jat	Nakur ...	Ditto ...	District Board, Karnal.	...
	Kalsaura ...	Chhapra Jat	Ditto ..	Ditto ...	Ditto ...	...
	Kamalpur ...	Kamalpur ...	Gangoh ...	Ditto ...	Ditto ...	...
	Begi ..	Begi ...	Ditto ...	Ditto ...	Ditto ...	...

POST-OFFICES, 1907.

Tahsil.	Pargana.	Locality.	Class of office.	Management.
Saharanpur.	Saharanpur ...	Saharanpur ...	Head-office ...	Imperial.
		Saharanpur city ...	Sub-office ...	
	Faizabad ...	Behat	Ditto ...	
		Mirzapur	Branch-office	
		Raipur	Ditto ...	
	Muzaffarabad...	Kalsia	Ditto ...	
		Biharigarh	Ditto ...	
		Muzaffarabad ...	Ditto ...	
		Sansarpur	Ditto ...	
	Haraura ...	Fatehpur	Ditto ...	
		Kailaspur	Ditto ...	
		Kota	Ditto ...	
Deoband,	Deoband ...	Deoband	Sub-office ...	
		Badgaon	Branch-office	
	Rampur ...	Rampur	Sub-office ...	
		Nanauta	Ditto ...	
	Nagal ...	Nagal	Branch-office	
		Paharpur	Ditto ...	
Roorkee.	Roorkee ...	Roorkee	Sub-office ...	
		Roorkee station ...	Ditto ...	
		Imlikhera	Branch-office	
	Bhagwanpur ...	Bhagwanpur .	Ditto ...	
		Sakrauda	Ditto ...	
		Mohand	Ditto ...	
	Jwalapur ...	Hardwar	Sub-office ...	
		Jwalapur	Ditto ...	
		Kankhal	Ditto ...	
	Manglaur ...	Landhaura	Ditto ...	
		Manglaur	Ditto ...	
		Laksar	Ditto ...	
		Jabarhera	Branch-office	
Nakur.	Nakur ...	Nakur	Sub-office ...	
		Ambahta	Ditto ...	
		Islamnagar	Branch-office	
	Sultanpur ...	Chilkana	Sub-office ...	
		Sultanpur	Branch-office	
		Gordhanpur	Ditto ...	
	Sarsawa ...	Sarsawa	Ditto ...	
	Gangoh ...	Gangoh	Sub-office ...	
		Lakhnauti	Branch-office	
		Titron	Ditto ...	

MARKETS, 1907.

Tahsil.	Pargana.	Locality.	Market days.
Saharanpur.	Saharanpur ...	Saharanpur ...	Thursday.
		Muhammad Aminpur ...	Tuesday.
	Faizabad ...	Behat	Sunday.
	Muzaffarabad	Muzaffarabad ...	Monday.
		Biharigarh (Thapal Ismailpur).	Friday.
	Haraura ...	Kailaspur	Thursday.
		Budhakhera	Saturday.
Deoband.	Deoband ...	Deoband	Wednesday.
		Rajupur	Thursday.
	Rampur ...	Rampur	Ditto
		Nanauta	Saturday.
	Nagal	Nagal	Sunday.
		Paharpur	Friday.
Roorkee.	Roorkee ...	Roorkee	Sunday and Tuesday.
		Imlikhera	Thursday.
	Bhagwanpur ...	Bhagwanpur	Friday.
	Jwalapur ...	Dhanaura	Ditto.
	Manglaur ...	Manglaur	Sunday, Wednesday and Friday.
		Laksar	Saturday.
		Jabarhera	Ditto,
		Bharni	Tuesday.
		Landhaura	Monday.
Nakur.	Nakur	Ambahta	Monday
		Nakur	Sunday.
		Khera Afghanan ...	Thursday.
		Islamnagar	Wednesday.
		Harpal	Saturday.
	Sultanpur ...	Sultanpur	Monday.
	Sarsawa	Sarsawa	Tuesday.
	Gangoh ...	Gangoh	Saturday.
		Lakhnauti	Sunday.
		Tiiron	Monday.
		Jhandkhera ...	Friday.

FAIRS, 1907.

Tahsil.	Pargana.	Locality.	Name of fair.	Date.	Approximate average attendance.
Saharanpur.	Saharanpur.	Saharanpur ...	Goga Pir ...	Bhadon Badi 10th.	5,000
	Muzaffarabad	Near Kasumri	Shakumbar Devi.	Kuar Sudi 13th.	8,000
Deoband ...	Deoband ...	Deoband ...	Chaudas ...	Chait Sudi 14th.	4,000
Roorkee ...	Roorkee ...	Piran Kaliar	Urs Shah Ala-ud-din.	Rabi-ul-awal 11th.	40,000
	Jwalapur ...	Hardwar ...	Makar Sankrant.	Magh Badi 14th.	50,000
	Ditto ...	Ditto ...	Somwati Amawas	Magh Badi 15th.	50,000
	Ditto ...	Ditto ...	Holi ...	Phagun Sudi 14th.	30,000
	Ditto ...	Ditto ...	Dikhauti ...	Chait Sudi 1st.	80,000
	Ditto ...	Ditto ...	Somwati Amawas.	Jeth Badi 15th.	50,000
	Ditto ...	Ditto ...	Dasehra ...	Jeth Sudi 10th.	40,000
	Ditto ...	Ditto ...	Somwati Amawas.	Kuar Badi 15th.	30,000
	Ditto ...	Ditto ...	Katki ...	Ditto	20,000
Nakur ...	Gangoh ...	Gangoh ...	Urs Qutb Alam Abdul Quddus.	Jamad-us-sani 22nd to 25th.	7,000

GAZETTEER OF SAHARANPUR.

INDEX.

A.

B.

G.

H.

I.

J.

K.

L.

M.

U.

V.

W.

Z.